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The University of Southern Mississippi

THE RELATIONSHIP BETWEEN FREQUENCY AND FUNCTIONALITY OF
PROFESSIONAL LEARNING COMMUNITIES TO STUDENT ACHIEVEMENT

by

Jack Linton Jr.

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

May 2014

ABSTRACT

THE RELATIONSHIP BETWEEN FREQUENCY AND FUNCTIONALITY OF PROFESSIONAL LEARNING COMMUNITIES TO STUDENT ACHIEVEMENT

by Jack Linton Jr.

May 2014

The ultimate goal of teacher professional development is to improve student achievement by improving teacher practices. To that end, the literature and research supports the development of professional learning communities as one of the most effective ways to accomplish that goal.

Therefore, the research questions addressed in this study were: (a) Are schools in Mississippi using professional learning communities? (b) To what degree does the principal rate his or her school is functioning as a professional learning community as measured by the *School Professional Staff as Learning Community* instrument (Hord, 1996)? (c) Is there a relationship between student achievement as measured by the 2011–2012 Mississippi Quality Distribution Index and the degree to which the school is functioning as a professional learning community?, and (d) Is there a relationship between the frequency of professional learning community meetings and student achievement as measured by the 2011–2012 Mississippi Quality Distribution Index?

The study used descriptive statistics to compile demographic information as reported by elementary school, middle school, and high school principals from across Mississippi. A Pearson correlation was calculated to determine if a meaningful relationship existed between student achievement and the degree schools functioned as

learning communities, and a correlation was calculated to determine if a relationship existed between student achievement and the degree of frequency of professional learning community meetings.

The findings from the study determined a significant statistical relationship did not exist in degree of function and student achievement or in frequency of meetings and student achievement. Although no significant statistical relationships were found, there were several positive findings in the study: (a) 98% of the respondents reported the use of professional learning communities in their schools; (b) Principals believe their schools function at a high level as professional learning communities; (c) The study indicated schools met regularly and even frequently for the purpose of collaboration; (d) The study pointed to a conscious commitment by both principals and teachers towards working together to provide support for a collaborative learning community; and (e) The study indicated that organizing schools into productive professional learning communities is a high priority for principals.

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A Dissertation

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CHAPTER I

INTRODUCTION

Overview

The ultimate goal of teacher professional development is to improve student achievement by improving teacher practice in the classroom. Therefore, professional development must focus on high-quality instruction and teacher best practices in the classroom as well as create an intentional focus on quality student work. To be effective, this focus must be a time-intensive, job-embedded, and team-based collaborative effort designed to improve student learning (NAESP, 2001). To that end, the development of teacher professional learning communities in schools appears to be one of the most effective ways to accomplish that goal. As this study shows, the research and literature support the practice of professional learning communities as a tool or venue to engage teachers in intellectual discussions focused on classroom practice and review of student data that positively impacts student achievement. This intentional focus on teacher practice, student work, and student data is centered on what Richard DuFour calls the essential learning. Essential learning focuses on two essential questions that DuFour says are the responsibility of every faculty member in the school. These are questions that drive or provide the focus of professional learning, and are questions that ask:

1. What does the student need to know and be able to do? (Learning expectations)
2. How will we know if and when each student knows what we want them to know and be able to do? (Measurement of learning) (DuFour, DuFour, Eaker, & Many, 2006a, p. 46)

The importance of these essential questions cannot be overstated. Often in schools, meetings are established for reasons other than addressing learning. Although it can be argued that all issues within a school are learning related, many meetings such as faculty meetings are more likely to be designed to focus on delivering school related information that more often than not has little to do with improving classroom instruction that in turn positively impacts student learning. These called meetings address everything from information sent down from the district central office to school policy, and they are primarily informational in purpose. Although there are times when such groups talk and discuss student learning, that is usually not the primary focus of the meeting. However, the function of a professional learning community (PLC) is always learning focused. This is important to understand since the focus of professional learning communities was the major premise of this study. It is important to also understand that there is a distinct difference between the function of a PLC and the function of a faculty meeting as well as most other specialized called meetings in a school. Faculty meetings, called specialized meetings, or committee meetings may be successful operating outside of the school day, occurring once every other week or monthly, or being facilitated by the principal; however, it is essential to the success of a PLC that it be job embedded, occur as often as possible, and be teacher directed or led. This kind of commitment leads to buy-in by teachers, which in turn facilitates teacher ownership and pride in what students learn and can do. In fact, taking ownership of learning should be the ultimate goal of learning for both the teacher and the student (Hord & Sommers, 2008).

Traditionally, in the United States learning has been identified only with summative results (grades). Learning has been about what teachers do to students, has

been teacher centered, and has been characterized by delivery of information. However, there has been a swing toward learning becoming more student centered. For example, to move learning to being more student centered, Stiggins, Arter, Chappuis, and Chappuis (2007) looked at learning through the lens of formative assessment. He identified formative assessment practices as those teacher practices that focus on timely feedback that assesses learning as it is taking place rather than waiting until an end point such as an end of unit summative assessment. Instead of learning focusing on *assessment of learning* (summative practices such as grades), he advocates for schools focusing on learning as a collaborative effort between students and teachers or what he calls *assessment for learning*. Assessment for learning revolves around the student rather than around the teacher. Learning becomes student goal oriented, with more reflection on results, and the teacher's role becomes a facilitator of learning rather than monopolizing learning. Learning becomes a partnership between the student and the teacher. However, the ultimate goal for all learning is for the learner to value learning and to take responsibility and ownership for it. *Assessment as learning* is the ultimate goal for which all educators and professional development that supports those educators should strive to reach. When used properly, assessment as learning revolves around the teacher continually checking for understanding and adjusting instruction to meet the learning needs of each individual student. Assessment as learning occurs when the teacher understands his or her role as a facilitator of learning. They comprehend that true learning is about discovery, and through the discovery journey, students are more likely to take responsibility for their learning. Students understand that learning is not about the desires or needs of the teacher, but rather about their needs as learners. As a result of this

understanding, students take responsibility or ownership for their own learning. In this ultimate learning environment, the students embark on a journey of discovery, and the teacher becomes the learning leader or guide (Stiggins et al., 2007).

Therefore, it is vital to the future of the children in schools for their teachers to become learning leaders and not simply followers of learning. By becoming learning leaders, teachers empower themselves with the tools necessary to mold young minds into thinkers who are motivated to take ownership of their own learning. By taking ownership of their learning, students are able to develop the tools they need to lead a successful and fulfilled life. Lynn Erickson (1995) summed it up in *Stirring the Head, Heart, and Soul* when she said, "When we are invited to use our minds, contributing and working collaboratively, we feel valued. When we are told what to do or what to say, we feel little personal fulfillment" (Erickson, 1995, p. 19).

These shifts from emphasis on the teacher to emphasis and focus on the student and from content delivery to content learning are central to the concept of professional learning communities. That is, the work of a PLC is student and learning centered where the teacher becomes more of a facilitator of learning than a deliverer of curriculum content. These shifts in learning are the driving force behind professional learning communities. Teachers are able to collaboratively focus on what students need to know, and if a student is not learning or meeting expectations, PLCs provide teachers time to focus on what needs to be done to meet the needs of the struggling learner. According to DuFour, Eaker, and DuFour (2005), these shifts are paramount to student growth and achievement. It is through these shifts from a teacher centered classroom to a student centered classroom that learning becomes more relevant for students.

These shifts in learning also change the focus of leadership and professional development, which are crucial elements of any successful professional learning community. Leadership shifts from the traditional role of the principal as the instructional leader to the teacher's role as an instructional leader. Although the principal will always be the leading instructional leader in the school, a learning centered shift requires the principal to empower teachers as instructional leaders as well. Such a shift in leadership is crucial not only at the instructional level, but in the area of professional development. Professional development is a major function of the professional learning community and when used properly becomes a major departure from the traditional professional development model where the principal leads or dictates the training through seminars or staff development work days to a more job-embedded training that is consistent, ongoing, and relevant since the training is driven by the PLCs and teacher leadership (Dufour, DuFour, Eaker, & Many, 2006b, p. 187)..

Along with these shifts comes teacher empowerment, or teachers taking greater ownership of the practices that impact learning in their classrooms. As a result of this empowerment, teachers also tend to find greater fulfillment in their professional lives when they are allowed to take control of their professional development. With teachers in control, there is a greater perception of professional development relevance. This falls directly in line with accepted adult learning theories. At the center of these theories is the personal quest for fulfillment such as the search for personal fulfillment through knowledge. The search for knowledge is a search to fill that empty void that exists in people when they are not in control. However, it is a search that most people, regardless of profession, are ill-equipped to handle alone. Therefore, to be successful in the quest

for knowledge and experience the freedom and fulfillment it brings, people must embrace a collaborative spirit that gives them the strength and courage to steadily move forward. However, moving forward can sometimes become an almost insurmountable barrier if people do not understand that it is and should be treated as a journey that cannot be completed in the blink of an eye. Like any journey, progress takes time as well as support from others whether they are family or colleagues in the profession, and the more people involved in supporting the individual's journey, the higher the chance that there will be a successful summation to the journey. This especially applies to teachers who, by the very nature of their job, are often cast into a position of isolation.

"Too many teachers in the United States are left to sink or swim without significant mentoring or assistance, leaving them feeling ineffective and unsupported" (Stewart, 2012, p. 105). Teaching in isolation is a major issue in education that has often led to counterproductive results since it is so embedded in the culture of teaching. Traditionally, teachers in the United States operate as Mike Schmoker (2006) quoted Richard Eaker as saying, "a group of independent contractors united by a single parking lot" (Schmoker, 2006, p. 23). Thomas Sergiovanni (2005) echoed this sentiment when he stated, "In most schools teaching is regarded as an individual act. Thirty teachers working in the same school are thought of as a collection of 30 individual practices" (Sergiovanni, 2005, p. 117). However, this cultural norm of isolationism stands contrary to the social learning theory supported by Albert Bandura. Bandura stated that learning is a social event in that people learn from each other through observation and modeling. He stated that people learn by observing the behaviors of others and that these observations serve as

a guide for learning actions. Simply put, most human behavior is learned through observations of other humans (Social Learning Theory, Bandura, n.d. para. 1).

The awareness of social behavior and the desire to make professional development more meaningful and productive as well as establish time for teachers to share best practices professionally has led many schools to embrace professional learning communities as a tool for professional development that is designed to impact student achievement by improving teacher instructional practices. In a PLC, teachers are united at a designated time and place to work collaboratively on curriculum, common assessments, assessment data, and instructional best practices. The goal is to improve teacher instructional practices that will in turn improve student achievement (Trimble, 2005).

This collaboration among teachers whether they are novice teachers or veteran teachers is a time-intensive activity in which lessons are continually improved and student achievement becomes the primary focus. The practice includes a variety of activities related to strengthening instruction such as examination of curriculum concepts, development of common assessments, peer critiques of instructional practices, and collaborative unit design and construction. The overall concept is for teachers to share ideas and expertise as well as to develop a support base so that individuals may become better teachers, which in turn will positively impact student achievement.

PLCs are supported by research such as the research sponsored by the National Staff Development Council (Learning Forward as of 2010) as well as many other educational researchers such as Rick and Becky DuFour, Douglas Reeves, Rick Stiggins, and Robert Marzano, to name a few. A key point endorsed by all of them is that effective

professional development should be job embedded. Stephanie Hirsh, in her article for *Learning Forward* (Hirsh, 2009), cited Bruce Joyce, Beverly Showers, and Emily Calhoun's support of this idea, "A preponderance of research in education as well as business shows that while adults are exposed to new ideas and practices in workshop settings and team meetings, they need on-the-job support to make the new ideas part of their daily routines" (Hirsh, 2009, p. 13). PLCs provide this on-the-job support.

"Volumes of research studies demonstrate that what happens in school makes a difference in student achievement" (Dufour & Burnette, 2002, p. 23). However, what happens in a school may negatively impact student achievement if the work of the school is not properly focused on student learning outcomes. To bring about such a focus on student learning outcomes, many schools are embracing the creation of PLCs. These professional learning communities with their focus on student learning outcomes rather than teacher inputs are being touted by education reform leaders as a collaborative tool for teachers that can positively impact student learning in the classroom. According to Wiggins and McTighe (2007), teachers working in collaborative teams are able to "evaluate student work against established criteria, identify models of excellence, and plan needed improvements" (Wiggins & McTighe, 2007, p. 165). However, traditionally, teachers in the United States plan instruction in isolation with little or no opportunity for collaboration with their colleagues. It is the norm for a teacher to exit the profession with years of valuable experience and expertise without ever having the opportunity to share experiences and expertise with fellow teachers.

However, in such countries as Japan, professional collaboration has long been a routine part of a teacher's work week. Known in Japan as Lesson Study, it is a time-

intensive activity practiced by both novice and experienced educators, and it is the means by which lessons are continually improved and student achievement is increased. Lesson study as described in *The Teaching Gap* (Stigler & Hiebert, 1999) may include a variety of activities related to strengthening instruction such as examination of curriculum and concepts, development of assessments, peer critiques of instructional practices, and collaborative unit construction.

Teachers involved in PLCs have the opportunity to be involved in collaborative time with their colleagues. During this collaborative time, they conduct research related to instruction, assessment, and student learning. They also have opportunities to work on the redesign of curriculums; develop, administer, and analyze common assessments; share individual instructional strengths; and collaborate with colleagues on instructional planning, teaching strategies, and classroom management. Research shows that great strides can be made when teachers work together and that professional interaction is not about territory, ego, or hiding weaknesses, but rather it is about sharing insights, expertise, and encouragement so that individuals may become better teachers (Hord & Sommers, 2008).

Through PLCs, instructional practices can be dramatically improved, and the bond between the teachers is often strengthened beyond a school district's highest expectations. For example, the department chairperson for a high school with professional learning communities summed up her department's feelings about their first year with PLCs when she said,

At first, some of my colleagues and I were excited about the opportunity to have time each day devoted to collaboration. The excitement waned within the first

few weeks. Years of professional isolation had left some of us indifferent, inflexible, intolerant, and intimidated. Differences of opinion resulted in heated discussions, angry tears, and frequent trips to the principal's office. Some group members strongly resisted this change in professional development. It took an entire semester for us to begin to work together as a team. However, after working through the initial pain often times involved in change, we have become more focused, and the team time has given us more opportunities to grow professionally than we have ever had. (C. Carpenter, personal communication, October 10, 2004)

The professional learning community is the most powerful ongoing professional development in which teachers can be involved (DuFour, DuFour, Eaker, & Many, 2010). It is the only professional development that provides daily collegial and administrative follow-up and support. PLCs impact student achievement by allowing teachers time to assess their content knowledge and delivery of instruction. There are several PLC models, but the most commonly supported models are designed around the following criteria:

1. Teachers are assigned a common TEAM period. This common collaborative time is not an extra planning period for grading papers, running copies, tutoring students, running errands or conferencing with parents. This valuable collaborative time is not about improving teacher preparation, but rather, it is about improving teacher instructional practice.
2. A major premise for the PLC is to end teacher isolation.
3. The collaborative TEAM period is for development of curriculum concepts,

assessing student data, developing student-centered quality lessons, and providing daily collegial support.

4. The PLC is preferably job embedded, which means the collaborative time occurs within the teacher's workday schedule.
5. The PLC is preferably teacher led. By being led by a teacher leader, the process builds relevancy of content and teacher ownership of the learning process (Hord & Sommers, 2008).

For a PLC to move beyond just another professional development meeting with good intentions, several factors must be considered. First, the school principal must guard the integrity of the team concept at all times. This is true because without proper monitoring teachers will tend to migrate back to their islands of isolation. Therefore, the principal must stand firm to the commitment to the team concept. Teachers have traditionally worked in isolation, and they will return to their old habits of isolation without stringent administrative supervision and intervention. People retreating to their comfort zone is a natural human trait, and for most teachers that comfort zone is the isolation of their classroom where they can withdraw and continue to do the things as they have always done them.

However, just keeping teachers corralled in one area is not enough. Not only must the teacher be physically present during the collaborative effort, he or she must also be mentally present. Therefore, the second factor for an effective professional learning community is a clear focus on the work for which the PLC was intended. The principal and the teacher leader must ensure that the focus of the work to be conducted each day in the professional learning community is clear and succinct. Any PLC without focused

commitment and facilitation by a strong teacher leader and principal equals a *gripe session*. Often without direction, teacher collaboration will cease to exist within a few short weeks. Without direction, the principal should be prepared to mediate continuous teacher-teacher skirmishes and discontent. The only way to avoid this is to establish a clear collaborative road map for the teachers to follow.

Teacher leadership is the third most crucial factor for maintaining a focused and productive PLC. Although the principal must be an integral part of the process, the day-to-day demands of the principalship make it almost impossible for the principal to meet with the PLC on a daily basis. That is why teacher leadership is so important. Strong teacher leadership is the glue that holds the group together in the principal's absence. As well as keeping the group focused on improving instructional practices, strong teacher leadership along with collegial support of that leadership helps guide the group to a common vision, which in turn promotes shared leadership among all members of the group. Through this shared leadership the group is more likely to make collaborative decisions about what learning the group needs to become more effective in its instructional practices. As a result, a true learning community focused on learning for students and teachers alike comes to life. These learning communities help build strong collegial bonds as well as establish a support system for new and veteran teachers alike (Hord & Sommers, 2008).

Statement of the Problem

Often with great chest-pounding, superintendents and principals talk about PLCs that they have established in their districts and/or schools. However, when questioned about their commitment to PLCs as a professional development tool to improve

classroom instruction, it is often discovered that commitment is superficial at best. The commitment to PLCs is often little more than changing the name of the school faculty meetings to "professional learning communities" rather than an actual commitment to job-embedded teacher collaborative time. "They claim to embrace 'professional learning communities,' but they have merely renamed their faculty meeting" (Reeves, 2010b, pp. 50-51).

However, for PLCs to truly impact teacher practice and student achievement, commitment needs to go beyond a name change. If PLCs are treated as just another educational trend or fad, which is exactly the kind of commitment implied by a name change only, the likelihood of seeing improved teacher practices and improved student achievement diminishes greatly. The research indicates that commitment to providing collaborative experiences for teachers does make a difference. Darling-Hammond and Richardson (2009) concluded that professional development that emphasizes student learning and helps teachers develop strong pedagogical skills has a positive impact on teacher practices as well as on student achievement. However, in an age of miracle cures for the ailments of education, do PLCs actually make a difference? Is there really a difference between those schools/districts that are providing multiple collaborative opportunities as opposed to those who are merely saying they are? Does collaboration among teachers really matter?

Research Questions and Null Hypothesis

To help answer these questions, four research questions were developed to guide the study:

1. Are schools in Mississippi using professional learning communities?

2. To what degree does the principal rate his or her school is functioning as a professional learning community as measured by the *School Professional Staff as Learning Community* instrument (Hord, 1996)?
3. Is there a relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which the school is functioning as a professional learning community?
4. Is there a relationship between the frequency of professional learning community meetings and student achievement as measured by the Mississippi Quality Distribution Index?

To answer the third and fourth questions, the following research hypotheses were formulated:

Null Hypotheses

H₀₁ – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which a school is functioning as a professional learning community.

H₀₂ – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the frequency in which a professional learning community meets.

Definition of Terms

The key terms to be used in this study are defined below:

Accountability – refers to holding schools and teachers accountable for the academic progress of students.

Collaboration – Teachers working in teams or groups for the purpose of accomplishing a common goal. This common goal deals with improving teacher instructional practices that in turn have a positive impact on student achievement.

Culture – The culture of teaching refers to embedded practices that have not changed and in some cases have not been challenged for years. Culture is the comfort zone in which teachers often operate.

Delimitations – Characteristics that define the boundaries of the study including decisions of what will be included or excluded in the development of the proposal.

Elementary school – Grades kindergarten through sixth grade.

Essential questions – The questions that should be the focus of every professional learning community:

1. What do we want students to know and be able to do?
2. How will we know if and when each student knows what we want them to know and be able to do? (DuFour et al., 2006b, p. 46).

Formative assessment – Providing feedback and knowledge checks that change instruction for the improvement of student learning.

High school – Grades 9 through 12.

Isolation – Teachers working alone in their rooms. They prepare lessons and plan instruction with little or no collaboration with other teachers.

Lesson Study – Japanese model of professional learning communities.

MAARS – Mississippi Assessment and Accountability Reporting System.

Middle school – Grades 7 through 8.

NAEP – National Assessment of Educational Progress.

NCLB – No Child Left Behind – Reform signed into law in 2002. It required standardized accountability testing as well as raised the expectations for student learning.

Professional development – Training provided for teachers to improve instructional practices.

Professional learning community (PLC) – A collaborative meeting of teachers designed to improve student achievement by improving teacher instructional practices.

Quality Distribution Index (QDI) – The formula used in the Mississippi accountability model for K–12 schools that is computed by multiplying the percentage of advanced students by three, multiplying the percentage of proficient students by two, and multiplying the percentage of basic students by one. The resulting numbers are then added together to provide the QDI or Quality Distribution Index.

SEDL – Southwest Educational Development Laboratory.

Summative assessment – A final assessment that is not normally used as a formative teaching tool – an example is a final grade.

Delimitations

1. Only principals were asked to take part in the study.
2. The study focused only on public schools in Mississippi.
3. Vocational schools, alternative schools, and attendance centers were excluded from the study.
4. The study involved elementary schools, middle schools, and high schools.
5. Data were collected by survey, and principals could have been biased when responding.

6. To maintain anonymity, principals self-reported Quality Distribution Index (QDI) scores. It is possible that a principal could have misreported intentionally or unintentionally QDI scores.

Assumptions

1. Principals know enough about professional learning communities to be able to determine the functionality or degree of functionality that their school is operating as a professional learning community.
2. All principals provided unbiased responses to the instrument.
3. All principals were truthful in reporting school Quality Distribution Index scores.

Justification

When implemented with fidelity, a professional learning community may impact student achievement by allowing teachers time to assess their content knowledge, collaboratively plan lessons, assess and adjust their delivery of instruction, develop balanced assessment practices, research new innovations and knowledge in their profession, and respond to student data in such a fashion as to provide timely feedback and adjustment of instruction that will positively impact student achievement. PLCs are a fundamental cultural shift in education from focusing on teaching to focusing on learning as well as a shift in how educators look at assessments (from infrequent summative assessments to frequent formative assessments). It is a tool to move teachers from what Stiggins et al. (2007) calls assessment of learning (summative assessment practices) to assessment for learning (formative assessment practices) and eventually to assessment as learning-practices where the student takes responsibility for learning (Stiggins et al.,

2007). However, the questions are, does following professional learning community model for professional development meet the needs of teachers and impact student achievement by developing a better quality teacher which directly impacts student achievement, and does the frequency of such meetings have any impact on student achievement?

Therefore, the goal of this quantitative study was to gather information from school principals as to the degree the principal sees his or her school functioning as a PLC. Also, the study sought to answer the question of correlation (if any) between the function of professional learning communities and student achievement. Finally, the study looked at the meeting frequency (how often PLCs met) of PLCs and sought to determine if there was a correlation between frequency of meetings and student achievement.

Since schools are bound by state and federal accountability mandates to improve student achievement for all children, PLCs may be the tool that school leaders need to help improve student achievement. Such improvement would satisfy state and federal mandates, so this study sought to determine if professional learning communities actually make that difference through functionality and frequency of meetings. Such information could be used by school leaders to promote professional learning communities with administrators, teachers, and the community.

CHAPTER II

REVIEW OF LITERATURE

Overview

This literature review examined the history of educational reform in the United States to improve achievement for all students. From the development of factory model schools in the mid-19th century and business model schools at the turn of the 20th century to the more recent reforms of No Child Left Behind (NCLB), this review looked at how reform has become more personalized to individual student needs rather than catering to the needs of the masses. It also looked at how the role of the teacher has changed dramatically from a deliverer of knowledge to a facilitator of learning. The value that research places on teacher collaboration, most notably in the form of professional learning communities as a tool for reforming teacher practices and improving student achievement, was explored as well. Finally, this review of the literature will seek to show how professional learning communities have been embraced in the research as an effective tool to help teachers focus on standards and accountability.

Education reform is nothing new in the United States; there have been reforms taking place in American education for over 150 years. Early education reform focused more on creating students who were good citizens with skills to be successful in an assembly-line society. Critical thinking and problem solving were not necessary to be successful as a laborer in the factory; therefore, these skills were given little attention. In fact, it was not until *A Nation at Risk: The Imperative for Educational Reform* (1983) was published comparing the scores of students in the United States with students in other industrialized nations that many Americans realized that perhaps there was something

wrong with the educational system in the United States. There had been other studies and reports prior to 1983, but *A Nation at Risk* fired a warning shot that awakened Americans up to the fact that problems with American education was not just a domestic concern, but a global problem of the most serious magnitude (*A Nation at Risk*, 1983).

Although reform of educational practices in the United States has been a major concern for many years, there has been little headway in the reform movements despite numerous political mandates, policy changes, and revisions. The No Child Left Behind Act of 2001, despite its many detractors and critics, probably did more to promote and bring about educational reform than any policy before or after it. If nothing else, NCLB generated greater awareness of the problem and created an atmosphere of accountability for teachers, administrators, and students. Holding students and teachers accountable for achievement on state tests became the center piece of educational reform; and to NCLB's credit, holding educators and students accountable did bring about improvement - especially in accountability for the content covered by the test. Teachers could no longer teach what they wanted with little or no concern for accountability of the content they taught. For their students to score well on the state tests, they had to follow and teach the grade level or subject area competencies established by the state. Although this brought about some improvement in what students were expected to know, the expectations from state to state often varied dramatically. For example, using the 2009 statewide assessment results reported by the Mississippi Assessment and Accountability Reporting System (MAARS), state results showed 13.2% of Mississippi fourth graders at the advanced level in language arts/reading and 11.0% of fourth graders at the advanced level in mathematics. However, when these numbers are compared to the 2009 National

Assessment of Educational Progress (NAEP), the only nationwide comprehensive test for measuring and comparing how students are educated, there is a huge discrepancy.

According to the NAEP results for that year, only 2% of Mississippi fourth graders scored advanced in reading while only 4% of Mississippi fourth graders scored advanced in mathematics. Why the discrepancies? There are many reasons. First, tests such as the NAEP should not be used as a comparison unless factors such as educational opportunity and socioeconomic impact are also considered (NAEP, 2010). Second, tests such as the NAEP use only a population sample (selected fourth and eighth graders with NAEP) to disaggregate their results; therefore, data could possibly be skewed by the testing demographics alone. Finally, a major reason for the discrepancies is the development of the state assessments themselves. Initially, state assessments were designed to provide a pass/fail minimum cut point, and the assessments were not intended to be used as a state-to-state comparison. Also, the rigor of the assessments could vary widely from state to state based on the nonstandardized content required by each independent state assessment developmental group. For example, the rigor on the state test in Mississippi could be either greater or less than the designed rigor of state assessments in Louisiana or Alabama. In other words, Mississippi's assessment might be easier or constructed with less rigor than another state's assessment, or vice versa. In spite of these comparative issues, assessment data have become the major focal point of new school improvement initiatives with emphasis on student growth, teacher evaluations, merit pay, charter schools, and Common Core State assessments that are designed to align the rigor of state assessments across the nation.

Alignment of state assessments through Common Core State Standards will hopefully prove to be the tool that educators have long needed to assess student growth and educational value from state to state. Under the old *do your own thing* state assessment programs, educators learned quickly how to play the game. Test taking skills became as important as acquisition of knowledge, and depending on the rigor of the state assessment, knowing how to take the test or *play the game* was often enough for a student to meet the minimalistic demands of the existing state assessment.

This was true unless an educator taught in an area of high poverty with a majority of minority students, then still another set of rules was possible. In these areas, accountability served only to magnify the vast disparity between *the haves* and *the have nots*. What educators quickly learned and politicians struggled to understand was that accountability alone would not improve education in America. Accountability was needed, but for students to truly grow academically, the United States needed to address directly what was happening in the classroom. Testing might be able to identify problems, but it could not fix them. To fix the problem, many politicians reasoned the solution was to get rid of the problem, which they often perceived to be the teachers in the poor performing schools. Why not? Most researchers agreed that the single most important factor contributing to student success in the classroom is the classroom teacher (Reeves, 2004; Wyatt, 1996); therefore, poor classroom performance was directly related to the poor quality of the classroom teacher. The fact that there may have been many other factors such as poverty and social issues outside the control of the teacher acting on the quality of performance in the classroom often was overlooked. The simple solution became to push the poor-performing teacher out the door and bring in a more competent

teacher to do the job properly. However, it was quickly discovered that this did not always work, and in fact, quite often the approach created additional problems of finding qualified teachers, especially in economically strapped areas. Lately, the move has been to retrain teachers rather than dispose of them, and one of the recommendations that has seen growing support for retraining or retooling teachers is professional learning communities. Collaboration of teachers in PLCs has become one of the most widely embraced of the educational reform recommendations. The basic concept is simple - involve teachers in collaborative unions to focus on sharing, research, and continuous improvement of student performance/achievement (DuFour & Eaker, 1998). However, despite the documented success of properly run professional learning communities, the questions of whether it is just a fad or does it actually impact student achievement still remains. Of course, most of the doubts can most likely be traced back to earlier educational reform innovations that often proved to be of little impact or substance.

A Historical Perspective of Educational Reform

Educational reform in the United States can be traced back as early as the 19th century. In 1843, after visiting a factory-model school in Prussia, Horace Mann returned home with a vision to create such a school in the United States. Partially as the result of his visit, he founded the American version of the Prussian school model where numbers of students roughly the same age were taught in the same classroom. Mann envisioned a free school for all children based on the economic and moral imperatives of 19th century society. His desire was to establish a school system that would create a common sense approach to ensuring the national identity. He also felt that groups of children learning together would “establish a more unified and egalitarian society” (Rose, 2012, para. 10).

His vision made sense for the industrial age of his time. The most efficient form of production was the factory line, so it stood to reason that a factory model for the classroom should be the most efficient form for producing a system of schools to provide educated citizens for an industrialized world. Like factories of the time, schools were not designed for personalization; they were designed for quick mass production of a product. This basic premise has remained unchanged since the mid-19th century (Rose, 2012).

Like Horace Mann, industrialists such as Fredrick Taylor began advocating for molding schools after the business model as America entered the 20th century. Taylor emphasized that schools, like factories, should be places of efficient production and management. He, along with most political leaders, business leaders, and school administrators of the day, argued that since the factory model had led the United States to becoming the top industrial nation in the world, the same model should be just as efficient when applied to education (Rees, 2001). The only difference was that “students were . . . the raw material transported along the educational assembly line” (DuFour & Eaker, 1998, p. 22).

According to Rees (2001), Taylor’s factory model became the design for schools across the nation, and to ensure teacher compliance, teachers were closely monitored as to what and how they taught. This mindset can still be seen in schools to this day where teachers often become frustrated and stressed if not given a guide with explicit instructions as to what to say and do step by step. Direct instruction is an example of this. Initially, teachers and students tend to thrive in a direct instruction classroom because basically they are following a script, and the scripted lesson tells the teacher and students what to say and do as well as when to say and do it. This is not to imply that all

direct instruction is bad. It is not. Direct instruction can be very useful as an initial approach to moving low-performing classrooms and schools forward. It provides the focus and direction that many of these schools need to succeed. However, direct instruction alone will move students only so far. It does not place emphasis on higher order reasoning and critical thinking skills that are so important in today's global society. Basically, it is a model of compliance. Very little ownership is taken by the teacher or the student for learning. In many cases, learning never progresses beyond the scripted lesson. There is very little if any focus on application of knowledge, and the lack of application of knowledge is the biggest negative for this model of teaching and learning. As a model of compliance, direct instruction is a clear example of a strategy that fails to meet the goals of such recent reforms as NCLB and Common Core State Standards where the goal is for *all* students to learn. Unlike the direct instruction example, these initiatives have in effect switched the focus from a teacher-centered classroom to a classroom that is more student centered with an emphasis on not only what the student knows, but what a student is able to apply to real life or world situations. What a student can do with knowledge has become just as important, if not more so, than the knowledge itself.

Unfortunately, the factory model of *one size fits all* still exists in schools across the United States more than 100 years later. The focus for many schools across the nation remains fixed on operational procedures rather than student learning results. As in a factory, teachers in many schools still have very little voice in the learning process although they should be the experts when it comes to understanding what students need to know. Empowerment of teachers is still often regarded as an intrusion on

administrative territory. Fortunately, political, business, and education leaders are beginning to recognize this failure of the factory model. For example, Bill Gates, one of the United States' most respected business leaders and an advocate for education reform, has suggested that schools in the United States are obsolete. He equates training the workforce of tomorrow in today's schools as the equivalent of "trying to teach kids about today's computers on a 50-year-old mainframe. It's the wrong tool for the times" (Gates, 2005, para. 14).

In 1966, the *Coleman Report* or *Equal Educational Opportunity* (EEO) report was presented to the United States Congress and concluded that there was a strong correlation between family background and student achievement. The report said, "schools bring little to bear on a child's achievement independent of his background and general social context" (Davenport & Anderson, 2002, p. 25). Basically, what the report said was that a child's achievement potential rested largely on the child's background. The child from a disadvantaged background of poverty or lower social standing could not be expected to perform as well academically as his or her more privileged peers. *The Coleman Report* was a setback for the philosophy that all children can learn, but it would lead to increased educational research studies as researchers began to try to dismiss the conclusions of the report (Davenport et. al., 2002).

In response to *The Coleman Report*, researchers began to look for answers as to why some schools made a difference with students while other schools did not. Through the research of Larry Lezotte, Ron Edmonds, and Wilber Brookover, common attributes of successful schools were discovered. These attributes became known as *the seven*

correlates of effective schools (Lezotte, n.d.). Lezotte (2005) identified the following seven correlates:

1. Instructional leadership
2. Clear and focused mission
3. Safe and orderly environment
4. Climate of high expectations
5. Frequent monitoring of student progress
6. Positive home-school relations
7. Opportunity to learn and time on task (Lezotte, 2005a, pp. 177-191)

The seven correlates challenged *The Coleman Report* and provided a strong direction for school improvement. Also, although not a totally new concept, Lezotte (2005) emphasized that collaboration in the form of professional learning communities was a tool that school administrators should embrace to bring about school improvement. He said that using professional learning communities would produce a powerful and effective framework for continuous school improvement that would lead to increased student achievement for all students” (Lezotte, 2005b).

In 1983, *A Nation at Risk: The Imperative for Educational Reform* was released. The report stated that the purpose of schools had been lost by both society and schools. The conclusions set out in the report were based on expectations for curriculum, time, and teaching of the subject areas, and those expectations were not being met since most schools accepted mediocre work and results from students. As a result of the report, student testing was increased and a more standardized curriculum was suggested. The report also proposed raising expectations of students by raising graduation requirements,

providing more effective use of instructional time during the school day, and finding ways to make teaching more rewarding and respected. This report became the foundation for national educational reform for the next two decades (*A Nation at Risk*, 1983).

The *A Nation at Risk* (1983) report was a dramatic move away from the factory mentality of one size fits all. Its recommendations were based on the beliefs that all students can learn, a high school education is within reach of all students, and the idea that lifelong learning provided students with the skills they would need to become productive citizens. This was a far cry from the bleak kids are doomed by who they are and where they come from mentality of the *Coleman Report* in 1966. Most agree that the *A Nation at Risk* report and the recommendations that came from it were the first true wave of reforming education as a possibility for all children.

In 1994, *Goals 2000 – Educate America Act* was passed by Congress. It was designed to provide a national framework for reform in education by improving learning and teaching. Under *Goals 2000*, the educational goals of school readiness, school completion, student academic achievement, leadership in math and science, adult literacy, and safe and drug-free schools were categorized. Teacher professional development and parental involvement were greatly encouraged as essential to school improvement. The expectation was that schools would be reformed to meet all eight goals by the year 2000 (Heise, 1994). However, goals must be realistic with an underlying understanding of social influences that impact both schools and families. *Goals 2000* failed to understand and take into account the impact of those influences. The necessary systems were not put in place to support the high expectations of *Goals 2000* (Knudsen & Morrisette, 1998).

In January 2002, the No Child Left Behind Act (NCLB) was signed into law. Reform under NCLB featured high-stakes accountability, student achievement, standardized standards (at least at the state level), and parental choice. School success was measured by how well students responded on state assessments. The purpose of the act was to provide equity of outcomes for all student populations including quality educational programs for all disadvantaged children (Donlevy, 2002). Lezotte (2005b) noted that the disaggregation of assessment data and the fundamental ideas presented by NCLB were directly influenced by the effective schools research. NCLB was intended to ensure that all students are learning. Donlevy (2003) pointed out that a major premise of NCLB was to address the academic achievement of sub-groups within the educational process, so that these groups would not be lost in the average scores of tested schools. An example of reform plans that began to take shape from NCLB was professional learning communities. Within these communities of learning teachers could better focus on the needs of children in sub-groups, and thereby, truly address the needs of all children.

The latest educational reform, Common Core State Standards, is set to be in place by the fall of 2014. The Common Core State Standards are designed to bring more rigor and complexity to the curriculum in the areas of language arts and math. It will place emphasis on expository reading and writing (nonfiction reading/writing) while aiming for a deeper understanding of content curriculum through application of knowledge and project-based learning. To provide a clear and consistent curriculum framework to help students prepare for college and the work, the standards were developed in collaboration with teachers, school administrators, and curriculum experts. The standards address

rigorous content and knowledge application through high-order thinking skills, are modeled after other top performing countries to bring connectivity for a global economy, and are evidence based (*Common Core State Standards Initiative*, 2012).

Based on research recommendations and to assist with the implementation of these standards, many states such as Mississippi are calling for the implementation of professional learning communities to provide teachers the collaborative time they will need to align their practices with the common core standards. To prepare students for the common core assessment, teachers will need to help their students develop a conceptual understanding of the curriculum. Students will be expected to not only know the content, but they will be expected to understand how to apply the content to real life situations as well as understand why. Since state assessments have for the most part been skills based, a conceptual approach will present new cognitive challenges for both students and teachers. Therefore, teachers will need additional time to collaborate and plan together to align lessons conceptually, and the professional learning community is the type learning organization that can provide teachers with that needed time.

The Learning Organization

To understand why a professional learning community can be an effective learning tool that impacts teacher practice as well as student achievement, it is important to look at the professional learning community as a learning organization. Peter Senge (1990) identified five disciplines that are crucial to any learning organization. He said that personal mastery, mental models, shared vision, team learning, and systems thinking must be mastered and merged into the lives of the participants if a team or group is to

become an effective learning organization (Smith, 2001). When this happens, participants in organizations are able to become lifelong learners.

Personal mastery refers to the individual being able to look within himself or herself for answers. This is not always easy, but very necessary if the organization is to grow or learn. Senge (1990) also emphasized the importance of mental models as a hindrance to learning since mental models are often preconceived notions that act as barriers to learning. Learning begins to take place when the members of the organization begin to understand these barriers and recognize those barriers within other participants in the group. Understanding these barriers heightens the awareness of each individual by helping the individual to understand more clearly the other members' perceptions of the barriers. This heightened awareness allows participants within the group to find ways to develop a shared vision that is so crucial to the learning organization. However, the vision must be created by the group and not just the group leader. If it is the leader's vision, there will be less buy-in from the other group members. Shared visions create enthusiasm and tend to be a motivational factor within the group. A shared vision also encourages experimentation and creativity within the group, and when that happens the group evolves into a learning organization (Smith, 2001).

For a group to become a learning organization, the members of the group must suspend preconceptions and/or assumptions and begin thinking as a team (Senge, 1990). Once this happens, the group members can begin to have conversations about student assessments, best practices in the classroom, and improving student achievement. However, to do this the members must be united by a common agenda to keep them focused. Without a clear agenda, group meetings can deteriorate into chaos. However,

the fifth discipline, systems thinking, is the discipline that brings the other disciplines together into one cohesive unit. Once a cohesive unit, the members can interact successfully as a learning organization. According to DuFour et al. (2006a),

The very essence of a learning community is a focus on and a commitment to the learning of each student. When a school or district functions as a PLC, educators within the organization embrace high levels of learning for all students as both the reason the organization exists and the fundamental responsibility of those who work within it. (DuFour et al., 2006a, p. 3).

Within this learning organization, a community develops over time in which information about academic content and instructional practices are continuously sought as a result of not only the principal's expectations, but as a result of the teachers' commitment to learning for all students. As crucial as on-going research is to school improvement, teachers involved in such learning organizations often find they learn as much from each other as they do from the research. NAESP refers to the collaborative efforts of teachers as crucial to the improvement of classroom instruction (NAESP, 2001).

Professional Learning Communities

Like school reform itself, professional learning communities are nothing new. Professional learning communities, like most early education reforms, can be traced back to an integration of business models into schools. The mindset was that if it worked in the factory and business, it should also work in schools. An early supporter of this idea was W. Edwards Deming, a reconstruction leader in Japan after World War II. Deming was one of the first to endorse the concept of collaboration with his use of *quality circles*. In the 1980s, he brought the idea home to the United States when he developed a plan to

help Ford Motor Company lift sagging sales. The quality circle groups or teams were empowered to identify, analyze, reflect, and solve problems within the organization to promote and produce a better product. Like professional learning communities, the goal of these circles was for the group to take ownership and become self-managers as the group matured. The quality circle members, like PLC members, became deeply involved in improvement of the organization. From there, collaborative teamwork gained momentum in the 1980s and 1990s when Senge developed his five disciplines, which included teamwork as a key component of success. Also in the 1990s, the Coalition of Essential Schools developed Critical Friends Groups, and finally, in 1997, Shirley Hord became the first to use the term professional learning community or PLC when talking about teacher collaboration in schools (Easton, 2011a).

It is important for both administrators and teachers to understand the history behind professional learning communities so that they have a better understanding that PLCs are not just some *fly-by-night* fad. Professional learning communities have been around for a long time in the business world, and they have proven to be invaluable tools for professional growth of group members as well as an invaluable tool for promoting improvement of the organization itself. As it has in the business world, the PLC has proven itself to be an invaluable educational tool for the professional growth of teachers as well as improvement of student achievement. In fact, a growing body of research supports collaborative professional development among teachers (Wiggins & McTighe, 2007).

Traditionally, teachers in the United States plan instruction in isolation with little or no opportunity for collaboration with their colleagues. It is the norm for a teacher to

leave the profession with years of valuable experiences and expertise that have rarely if ever been shared with other teachers. In many other countries such as Japan, professional collaboration has long been a routine part of a teacher's work week. Known in Japan as Lesson Study, it is a time-intensive activity practiced by both novice and experienced educators and is the means by which lessons are continually improved and student achievement is increased. Lesson study may include a variety of activities related to strengthening instruction such as the examination of curriculum and concepts, development of assessments, peer critiques of instructional practices, and collaborative unit construction (Stigler & Hiebert, 1999).

Using the Japanese model for Lesson Study and the American model established by Richard and Becky DuFour, many schools across the United States have embraced PLCs as their primary form of professional development. These schools have organized teachers into subject area specific teams or grade level specific teams to conduct research related to instruction, assessment, and student learning. Such groups also work on the redesign and alignment of curriculums; study and analyze data; develop, administer, and analyze common assessments; share individual instructional strengths; and collaborate with colleagues on instructional planning, teaching strategies, and classroom management. Schools that have embraced the PLC concept believe that great strides can be made when teachers work together and that professional interaction is not about territory, ego, or hiding weaknesses. It is about sharing insights, expertise, and encouragement so that individuals may become better teachers. It is about sharing research, sharing best practices, and teachers supporting one another to become better instructional leaders in the classroom. Stigler and Hiebert (1999) make this very clear

when they point out that learning communities must focus on clear learning goals for students and sharing curriculum ideas and practices among teachers. With a concentrated focus on goals and curriculum, gradual improvements in student achievement can be made. However, as with anything new, there is always a certain amount of initial apprehension and even resistance, but most schools report the growing pains have proven to be more than worth the effort. Through the PLC process instructional practices have been dramatically improved, and the bond between teachers has strengthened beyond the school's highest expectations.

The PLC is the most powerful on-going professional development in which teachers can be involved (DuFour et al., 2005). It is the only professional development that provides daily collegial and administrative follow-up and support. PLCs impact student achievement by allowing teachers time to assess their teaching pedagogy, content knowledge, and delivery of instruction. The professional learning community is designed around the following criteria:

1. Teachers are assigned a common team period. The most effective team time is a meeting time that is embedded within the school/work day. Douglas Reeves in *Confronting the Myths of Change Leadership* (Reeves, 2009) states, "To be effective, professional collaboration requires time, practice, and accountability. Schools that claim, for example, to be professional learning communities but fail to provide time for collaboration are engaging in self-delusion" (Reeves, 2009, p. 46).
2. This common time is not an extra planning period for grading papers, running copies, tutoring students, running errands or conferencing with parents. This

valuable collaborative time is not about improving teacher preparation, but rather, it is about improving teacher instructional practice. For collaborative teams to be effective, the team must focus on the development of curriculum concepts, assessing student data, developing student-centered quality lessons, and providing daily collegial support.

In healthy developing schools, professional development in the form of reflective practice, supportive supervision, cooperative evaluation, and work-study groups are routine practices in the day-to-day operation of administration, faculty, and staff; they are embedded in the school's culture, rather than artificially injected or superimposed as an event, such as a workshop or in-service experience scheduled intermittently. (Gupton, 2003a, p. 96)

3. A major premise for PLCs is to end teacher isolation as well as provide ongoing mentoring opportunities for new or struggling teachers. Although a relatively new concept in the United States, industrial nations of the Organization for Economic Co-operation and Development (OECD) provide teachers multiple opportunities for involvement in learning communities. The evidence shows that teachers from OECD countries are much more likely to visit classrooms of other teachers and be involved in instructional collaboration than teachers in the United States (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009, p. 12).

Reeves (2010a) stated that the two areas in which educators have the greatest influence are teaching and leadership, so it stands to reason that the greatest areas of

emphasis for school professional development and school improvement efforts should lie with improving teaching and leadership. However, often educators tend to worry too much about outside factors or student factors over which they have little or no control. These worries result in poor use of time and resources and lead to time being wasted on fruitless pursuits. Therefore, it is essential that PLC time is always protected and focused.

Although there are times when flexibility in the PLC process is warranted, the school principal must guard the integrity of the collaborative process at all times. The principal must stand firm to the commitment of quality time for PLCs. This is true in part because teachers have traditionally worked in isolation, and people are creatures of habit. Without stringent administrative supervision and intervention, teachers will often return to their old habits of isolation. Retreating to their comfort zones is a natural human trait, and for most teachers that comfort zone is the isolation of their classroom where they can withdraw and continue to do the things they have always done - doing those things that are most comfortable.

However, just keeping teachers corralled in one area is not enough. Not only must the teacher be physically present during the collaborative effort, he or she must also be mentally present. Initially, a PLC may be so stressful to some teachers that they actually may mentally withdraw from the group. They feel uncomfortable and even threatened by a fear of being personally judged or a fear of having their work judged by their peers. This fear can only be calmed over time through trust. Only after trust is established among group members will the teachers be able to open up with their peers about what they teach and how they teach (Hord & Tobia, 2012). Therefore, it is crucial

that there be a clear focus on the work for which the PLC was intended, but just as important is the cultivation of trust within the group. The principal and the teacher leader must ensure that the focus of the work conducted in the PLC is clear and succinct, but they are just as responsible for developing the relationships within the group. A PLC without focused commitment to the instructional work, facilitation by a strong teacher leader and principal, and development of internal relationships within the group is doomed for failure.

Although teacher leadership and administrative leadership are both crucial to the success of a PLC, strong teacher leadership may be the most crucial element for maintaining a focused productive PLC. Although the principal must be an integral part of the professional learning community process, the day-to-day demands of the principalship make it almost impossible for the principal to meet with the group on a daily basis. Therefore, strong teacher leadership is the glue that holds the group together as well as keeps the group focused on improving instructional practices. The teacher leader should not dominate the group, but rather act as a facilitator who helps the group maintain focus. Like the classroom, the PLC meeting must be deliberately planned if it is to accomplish the goals of the meeting, which are to improve teacher practices that in turn will improve student achievement. Any collaborative meeting (PLC) must include defined results and measurable actions that will be undertaken by the members of the meeting. The members of the PLC should be able to articulate the goals and measures of success for the meeting (Reeves, 2009).

While it is imperative for teachers and even administrators to have time to reflect on and analyze data and practices, it is also crucial to the integrity of the process that all

participants are held accountable for the group's goals and focus. This does not mean that every PLC will operate entirely in the same way, but it does mean that every PLC will operate according to established norms for collaborative work within the school district (Burris & Garrity, 2008). Even in the same school district, the process may look slightly different from school to school, especially when it comes to grade level, but overall each school will have similar goals and collaborative processes. For the PLC to have the desired impact on teacher practices and student achievement, each school should be given enough flexibility to adapt the process to the needs of its students and teachers. In other words, what works at the high school may not work in the same exact way at the primary school; however, the same basic collaborative processes remain in place at both schools.

An example of this can be seen in the adaption of critiquing teacher lessons from one grade level to the next. Although not the standard for all PLCs, many groups have embraced lesson critiques as an integral part of improving teacher practices in the classroom. Lesson critiquing is a simple but thorough process that can be easily adapted to the needs of both teachers and students at different grade levels. Lewis and Hurd (2011) explored the value of lesson critiques at Mills College in San Francisco, California through their work with Lesson Study. The basic process is as follows:

1. Each teacher in the group is scheduled to develop a lesson around a particular concept or to address a problematic lesson. A teacher may actually present several times during the course of the school year. The teacher presenting to the group introduces a lesson concept or a problematic lesson to the team. The teacher uses this time to gather input from team members. Team

members offer suggestions for the lesson presentation based on their experiences and/or knowledge of the lesson. Team members may also share resources with the presenting teacher.

2. The presenting teacher prepares the lesson and brings the prepared lesson back to the team. The teacher then teaches the lesson to the team in a classroom setting. After the lesson has been delivered to the team, the teacher and the team sit down together to discuss/critique the lesson. The team offers input into what worked and what did not work. They may also discuss perceived gaps in the delivery or the instructional content of the lesson. The team will strive to look at the lesson through the eyes of the student:
 - a. What was the goal or purpose of this lesson?
 - b. Why is this lesson relevant to me?
 - c. What relationship does the lesson have with me and the world in which I live?
 - d. What does the teacher expect me to learn?
3. The presenting teacher takes feedback from the team and makes adjustments to the lesson as needed.
4. The presenting teacher teaches the lesson to the students. Providing team teachers the opportunity to observe the lesson as it is taught to the students is highly recommended; however, this option may not always be feasible. Therefore, a viable substitute is to videotape the lesson for future critiquing in the PLC meeting. Research supports that teachers who used video to film lessons and then used the video as a means of critiquing their practice in the

classroom showed a significantly greater increase in teaching efficacy than those teachers in the same subject areas who did not video and critique their lessons (McConnell et al., 2008).

5. The presenting teacher meets with the team. During this meeting, the presenting teacher presents a self-critique of the lesson to the team:
 - a. What worked?
 - b. What did not work?
 - c. What would he/she do differently?
6. The presenting teacher and the team view the teacher video and critique teacher delivery, presentation preparation (organization, materials, etc.), facilitation of learning rather than monopolizing learning (Who is working? The teacher or the students?), and teacher formative assessment techniques. The presenting teacher and the team also look at student interest in the lesson and student involvement in the lesson.
7. Finally, the presenting teacher writes a final lesson, which includes all revisions. This lesson is catalogued for future use and sharing with other teachers (Lewis & Hurd, 2011).

This critiquing process is just an example of the type of work that teachers participate in when involved in a PLC. It is because of activities such as this that Richard DuFour and colleagues say that the PLC offers the most powerful model for helping transform schools to meet the challenges of the 21st century (DuFour, DuFour, Eaker, & Karhanek, 2004).

Although the focus of PLCs may vary slightly from school to school or from school district to school district, schools should never lose sight of two things. First, PLC time is collaborative in nature, and it is time that is set aside as frequently as possible (preferably daily) for teachers to work on developing quality work that is rigorous, relevant, and fully engages students in learning. The second item that is crucial to the PLC is established protocols that all team members are expected to follow. Without a set protocol, team meetings can become unfocused and even adversarial. An established protocol that everyone is expected to follow also states that the meetings are important and everyone is expected to be professional in how they deal with one another. The following is an example of a protocol a professional learning community may adopt:

1. No single member of the team may monopolize the meeting;
2. All members are expected to contribute to the meetings;
3. If there is a difference of opinion, consensus will be used to come to a working solution;
4. All team members will sign-in for each meeting;
5. An agenda will be developed prior to every meeting;
6. A team member or members will be designated to keep minutes of all meetings;
7. Team time is sacred. Teachers are to report to the PLC on time. Professionals would not keep their students waiting, nor should they keep their colleagues waiting; and

8. All teachers are to work as a group unless the teacher leader breaks the group into smaller units for the purpose of research or collaboration on specific units (Price, 2012, pp. 199-202; Team Tactics and Techniques, n.d.).

Even though these guidelines may vary somewhat from school to school, the bottom line is that there must be some kind of established protocol in place if individuals are to be expected to work together in a collaborative manner to positively impact student achievement. The common objective is to organize the group or groups in such a way as to maximize collegial learning and student learning. The goal is for the PLC to become a professional tool for improving teacher practice that will in turn improve student academic growth (Joyce & Calhoun, 2010).

Issues with Professional Learning Communities

While many schools have embraced PLCs as a tool to improve teacher practices and student achievement, more may have committed to it as the popular thing to do rather than actually committing to it as a reform tool. The term professional learning community has become so commonplace in education circles that its true purpose and meaning have become lost for many educators. There seems to be a growing notion among some educators that having groups called professional learning communities will improve their schools and cause their students to learn more effectively. However, it is not the name professional learning community that improves teacher practices and student learning, but rather the collegial work that takes place within the communities. Unfortunately, many educators fail to understand this, and as a result, professional learning communities have come to identify any loose meeting of teachers who share a common interest in education (DuFour et al., 2006b). Basically, many schools have done

little more than rename their faculty meetings *professional learning communities*. This would be acceptable if these schools had also changed the setup and focus of their faculty meetings, but that has not always been the case.

Another issue that faces professional learning communities is the reluctance of educational leadership to let go of ways of the past. Traditionally, school professional development has taken the form of seminars, conferences, motivational speeches, and in-school professional development centered on classroom management. While sending educators to seminars and conferences to obtain new ideas and strategies is still encouraged, the speeches and the in-school designed professional development often leave a lot to be desired. This is primarily because they are usually not relevant to the needs of the teachers or their students. This is primarily because they are one-shot wonders. As well intended as in-school professional development may be and at times as well-done as it is, there has always been and will always be two glaring problems with the concept. One, how can a school in need of improvement expect to improve through in-school professional development based on instruction theory when it is led by local educators who however well-intentioned they may be are nevertheless struggling and searching for answers themselves? However, even if a school can afford to bring in outside support to lead their professional development, which may result in excellent professional development, the training is still delivery based with inconsistent with limited if any follow-up. Reeves (2009) argued that effective change does not happen without repeated practice of the behaviors expected by the organization. Seminars, speeches, workshops, and conferences cannot replace on-going practice. Changing professional behaviors through repeated or on-going practice is one of the major strengths

of a PLC. Professional training conducted through a PLC has the benefits of being relevant to teacher and student needs since it is professional development that is facilitated and driven by teachers. Also, the frequency of the meetings provides the perfect vehicle for ongoing professional development follow-up and feedback. No longer is professional development content a series of loosely related strategies or pieces of information. The professional learning community by its very nature ties all the pieces of professional development together so that strategies for improvement can be practiced and studied over and over again until perfected. Without the PLC, professional development is often disjointed and inconsistent at best. As long as professional development is seen as a series of scheduled events with little coherence or relevance to solving the problems facing teachers in the classroom, it is not likely to have much impact, if any, on student learning (Hawley & Valli, 2000).

Impact of Professional Learning Communities on Student Achievement

For schools to be successful, teachers must share curriculum, instructional strategies, and student assessments within grade levels as well as within content areas. They must develop instructional coherence through practice across disciplines that will in turn impact student achievement. To develop this instructional coherence, teachers must receive sustained support from leadership, professional development must be consistent and high quality, and they must be able to collaborate within and outside curriculum disciplines. Such coherence in instruction helps develop and sustain a common focus in the school among teachers and administrators alike. By developing a common focus that results in instructional coherence, teachers also help students to see and understand connections between core curriculum and real-world applications. Through this concept,

core teachers are able to show students what they need to know as well as be able to do in order to be successful in the world outside the classroom, and non-core teachers are able to support them by reinforcing the same expectations in their classrooms. As a result, students begin to see how their educational experiences and real-world experiences are linked together. Diana Oxley in "Creating Instructional Program Coherence" (Oxley, 2008a) pointed out that educational experiences can be drawn together to show key relationships if learning expectations are reinforced in all classrooms across all grades.

The research suggested that schools that show coherence of curriculum, instruction, and assessment practices show a marked improvement in student achievement (Newmann, Smith, Allensworth, & Bryk, 2001). In truly successful schools, teachers share curriculum, instructional strategies, and collaboratively grade student assessments. However, this sharing must take place not only within the grade or subject disciplines, but it must happen across disciplines and grade levels as well. Kedro (2004) conducted research of the St. Louis Public Schools and the Council of Great City Schools, which supported the concept of coherence as a major factor in the success of schools. His research showed that a combination of shared vision of excellence/high expectations, cohesive instruction, and sustained and focused professional development impacted student achievement. For such coherence to take root in a school there must be a collaborative effort by teachers across content areas and grade levels. Based on the results of research into school coherence, teacher collaboration seems to be a major factor for increasing student knowledge and skills (Flowers, Mertens, & Mulhall, 2000; Goddard, Goddard, & Tschannen-Moran, 2007; McLaughlin & Talbert, 2006). To bring about this necessary collaboration, schools should develop professional learning

communities or career academies. Such groups are strong venues for collaboration across subject areas and grade levels (Oxley, 2008b).

Developing this kind of coherence in schools requires teachers and school administrators to rethink their approach to professional development. It calls for not only organizational mindset changes, but reframing leadership roles within the schools as well. This means that there must also be coherence of leadership between teachers and administrators, which calls for administrators to grant empowerment of teacher leadership roles. In his book, *Reframing Teacher Leadership to Improve Your School*, Douglas Reeves (2008) talked about school improvement by empowering teachers as leaders to increase student achievement. He supports action research as the *new professional development* and said that it directly affects student achievement, practices in the classroom, and professional development itself. According to Reeves, an example of empowering teacher leadership built around action research that has produced a significant impact on student achievement can be seen in the successes of the Clark County School System in Clark County, Nevada. The school system has adopted a framework for teacher leadership, which is based on a seven-step process: recognition, research, results, reflection, reinforcement, rejection, and resilience. Through this process, teachers collaboratively develop strategies for addressing student achievement needs. This seven-step process or framework aligns well with the structure and purpose of professional learning communities.

However, Reeves (2008) did not think that this process is necessarily easy to implement. In fact, he says *change is death*, which is meant to illustrate how difficult it is for some people to leave their comfort zone behind no matter what the promises or

rewards may be. According to Reeves, there are three kinds of resistance to change: blame, bureaucracy, and baloney. Blame is illustrated by traditional scapegoats for student failure, but Reeves said that educators must look at the evidence that supports schools can overcome such past excuses as demographics and lack of time as reasons for student failure. Second, he said schools must shift the leadership role of school administrators from being the leader *to seeking the leader* within the organization's network. The third resistance to change is simply referred to as *baloney*. Baloney, or disbelief in the principles or concepts of the intended change, blocks change from happening when people base their beliefs or practices on assumptions that lack evidence of effectiveness.

PLCs, however, can help dispel these three oppositions to change. Helping to bring about change within the organization is a strength of the PLC. It is easy to lay blame when an individual is isolated and does not have to look the other person in the face; however, blame becomes less of a crutch and less likely to occur when individuals sit across from each other daily in a PLC. Reflective conversation rather than blame is encouraged by involvement in a collaborative setting. Problems or differences of opinion are able to be addressed professionally, which provides for a stronger and more cohesive support base for all participants. Also, resistance to change can be reduced by a strong teacher leader in the group who redirects the focus away from blame and directs it toward solutions for school improvement. Such a teacher leader also helps with the second barrier, seeking the leader. A major attribute of any effective PLC is a strong teacher leader who understands the goals and focus of the group and the school. Through PLCs, the school administrator empowers teachers to become instructional leaders, and thereby

share in the responsibility for school improvement and increased student achievement. Finally, PLCs are steeped in research and ongoing professional conversation that tend to dispel any beliefs or assumptions that the intended change is baloney. In short, the professionalism and support exhibited within a PLC helps administrators and teachers to understand that blame will not correct problems. A philosophy of *no excuses – no blame – research it – reflect on it – apply it* is established, which results in overall school improvement and increased student achievement.

However, despite research that clearly shows that student achievement can be effectively improved through realignment of resources, empowerment of instructional leadership, reframing the organization, and building a coherent collaborative culture, the 1966 Coleman Report (Davenport & Anderson, 2002), which concluded that there was a direct correlation between family background and socioeconomic standing and student achievement, remains a major obstacle for educators to overcome in order to improve achievement for all students. The belief among many people, including some educators, that minority students and students from impoverished backgrounds cannot be expected to achieve at high levels remains a major obstacle for educators nearly 50 years after the report was first published. However, the research of such researchers as Douglas Reeves has gone a long way in dispelling the inaccuracies of the Coleman Report. In spite of beliefs by some that students who come from ethnic backgrounds or environments embedded in poverty do not perform well academically, Reeves (2004) cited the success of several school districts that have shown success in spite of those very obstacles. He called these schools 90-90-90 schools. The students in these schools are at least 90% ethnic minority and 90% receive free or reduced school lunches. However, 90% of the

students in these schools met or achieved high academic standards on independently conducted tests of academic achievement. According to Reeves' research, the commonalities that link these schools are a clear focus on academic achievement and curriculum, multiple chances for assessment and improvement, nonfiction writing, and collaborative scoring of student work. Collaboration among teachers that focused on student improvement and direct involvement by the principal in the assessment and improvement process were also identified in the 90-90-90 schools as factors that led to student success (Reeves, 2004).

Throughout each of these studies, there is a recurring theme of collaboration. Without exception each study has pointed to teacher collaboration as a means of improving student achievement. The research is clear, "Teachers who think and study together can make positive changes that, moreover, can make a serious difference in student learning in a relatively short time" (Joyce & Calhoun, 2010, p. 62). However, for collaboration between teachers to become effective enough to impact student achievement, there must be time allowed for collegial growth and trust. This collegiality does not happen overnight, but given time to develop, collaboration among teachers can produce improved student achievement. That is a major reason why it is so important for collaborative teams to have the opportunity to meet as often as possible. Trust and collegiality will not develop effectively or in a timely manner unless adequate time is committed to teachers meeting for the purpose of improving student achievement through collaboration. When teachers are provided this collaborative time and are allowed to focus on improving student achievement, many schools have shown vastly improved student results (Reeves, 2010b). In fact, when properly set up with supports and

commitment to the collaborative process, there is a preponderance of evidence that indicates teacher collaboration that focuses on learning can increase academic performance, and it may have a positive impact on the performance of minority students who come from low-income backgrounds (Ginsburg-Block, Rohrbeck, Lavigne, & Fantuzzo, 2008).

Research has demonstrated that when schools are organized as learning communities, they are more likely to show academic success (Goldring, Porter, Murphy, Elliott, & Cravens, 2007). However, meeting for the sake of meeting with little focus or direction, using collaborative time for such things as classroom prep time, and basically committing to collaboration as little more than a name change for pre-existing faculty meetings and/or committees with little or no change in the business or focus of these groups is likely to produce little if any significant difference in student achievement. For collaboration between teachers to be effective there must be an established formal mechanism in place that ensures participation by all constituents in the teaching and learning process, and there must also be a supported commitment by the principal and other school administrators as well (Gupton, 2003b).

However, in an age of *silver bullets*, such commitments are often overlooked for the quick fix. Reeves (2010b) said it is the work of the teachers and administrators and the commitment to implementation that is most likely to make the difference in student achievement and that research supports that it is not brand but fidelity of implementation that makes the difference in student achievement and school improvement. In brief, it is practices and people that make the difference for student achievement. Even as viable a tool as a PLC is for school improvement, it is not the PLC itself that makes the difference

in teacher practices and student achievement, but rather it is the collaborative work that takes place within the professional learning community that makes the difference.

Research consistently states that schools engaged in professional learning communities are “our best hope for sustained, substantive school improvement” (Ruebel, 2011, para 9). The reason is that through PLCs teacher practices are changed and supported in the best interests of the students. Although change is often uncomfortable, the PLC offers teachers the means and the support needed to make changes that are in their best interests as professionals with the result being a positive impact on student achievement. Through PLCs teachers are empowered to get involved in the decision making processes paramount to making changes that impact their students’ academic success. The strength of the PLC is that it is a continuous reflective activity that focuses on school and student improvement.

Although there is still a need for additional studies, there is strong evidence to support that PLCs improve schools and impact student success in the classroom. Numerous research, case studies, and evaluations of professional learning communities strongly support that collaborative practices impact teacher practices in the classroom and student achievement outcomes. Regional Educational Laboratory Southeast (2007) provides a selective summary of some of the studies that offer additional support that PLCs do impact student achievement by directly impacting the work of students, teacher practices, and school culture as well. Several of the studies from the REL report are listed below:

- PLCs are worth pursuing for capacity building to sustain improvement and student learning (Bolam, McMahon, Stoll, Thomas, & Ingram, 2005).

- PLCs increased shared responsibility for student achievement (Hord, 1997).
- In schools with high achievement, teachers met regularly with literary leaders to discuss data in student achievement in relation to national benchmarks. They discussed specific student problems and how teachers may assist them. This was typically followed up with classroom observations and support to put new practices into place (Ministry of Education, New Zealand, 2003).
- Although change was slow, teachers generally wanted to collaborate in PLCs where a concept of cultural and structured changes emerged (Wells & Feun, 2007).
- Hord (1997) reported larger academic gains in math and science, history, and reading as a result of teacher collaboration. Smaller achievement gaps between students from different backgrounds were also reported (Hord, 1997).

These examples of several additional studies not cited in this paper provide additional support that PLCs do impact student achievement by directly impacting the work of students, teacher practices, and school culture (Regional Educational Laboratory Southeast, 2007).

Summary

Through the PLC the focus shifts from the teacher to the student learner. Through collaboration teachers identify problems, research solutions, and develop strategies to address the identified needs of the students. The process is a formative process for teachers that encourage collegial interaction and reflection. This interaction and reflection provides feedback that directly impacts classroom instruction that in turn impacts student achievement positively. However, the research indicated that the

benefits do not stop there. Through PLCs, teachers learn through their own reflections, collaborative experiences, and study of the learning process to understand students as learners. In fact, teachers once again become learners themselves and become better equipped to empathize with their students. As a result, they begin to understand that their job as a teacher is not only to teach, but rather to ensure that all students learn. Hord (1997) said that the benefits of such empathy for students impacts students in more ways than just student achievement as measured by state assessments. The benefits for students often include the following:

1. Decreased dropout rate and fewer classes cut,
 2. Lower rates of absenteeism,
 3. Increased learning that is distributed more equitably especially in the smaller high schools,
 4. Larger academic gains in math, science, history, and reading than in traditional schools, and
 5. Smaller achievement gaps between students from different backgrounds
- (Hord, 1997).

These benefits are at least in part due to the collaborative culture that is encouraged and nurtured through the PLCs. Through these learning organizations, teachers cultivate an understanding for student learning needs. They are empowered with additional job-embedded time to talk about teaching, assessment, and students. They are given more time to research and discuss how they can support and improve student learning. From these discussions, strategies are developed that provide immediate and timely interventions for struggling student learners. In addition to timely interventions, the

teachers' renewed empathy for students is often carried back into the classroom where it is recognized by the students as a sincere interest in their well-being. For many students this is the motivation and encouragement that they need to improve and even for some to stay in school.

However, the biggest reasons why the use of PLCs in schools positively impacts student learning can be seen in the priorities established by the PLC itself. Although in low-achieving schools strategies as simple as raising learning expectations for student success may result in marked improvement, to sustain that improvement it is essential that non-negotiable baseline priorities are put into place. For the professional learning community, these non-negotiable priorities include the following:

1. Focus on learning,
2. Focus on collaborative culture,
3. Focus on results, and
4. Providing timely, relevant information/feedback (Eaker, DuFour, & DuFour, 2002).

These priorities, aligned with what Little (2000) called productive teams in which teachers plan with rigor in mind, design with a purpose, research strategies, evaluate and analyze student data, and prepare lessons and materials together result in improved student performance and achievement. However, one of the biggest reasons that professional learning communities are successful in improving student achievement is that members of the learning organization hold each other accountable to the level of student achievement needed to sustain improvement.

The literature is clear about the impact that PLCs have on student achievement. However, despite the research, some school leaders still do not understand that it takes more than a name change for a group of individuals to become a learning organization. A professional learning community is not a *silver-bullet*, but rather a tool that brings about improved student achievement through collaborative hard work by a team of individuals united with one focus, and that focus is improving the achievement level of all students. Many schools, though, continue to look at PLCs as a *fix-it* or *fix-all* solution; however, PLCs are not a solution unto themselves, but rather a tool or forum for collegial professional collaboration where solutions can be researched, identified, practiced, and applied. Although such things as changing bell schedules and shuffling teaching schedules may occur in an effort to provide collaborative time for teachers, it is the work itself during this time that makes a difference in student achievement, not the manipulation of bell schedules or the act of meeting.

However, a PLC without an intentional focus on student achievement is a waste of time and effort. A PLC works only when it is sustained internally and relies on teacher-to-teacher instruction and practice. The process works through the context of learning through collaborative conversations as well as capturing differences in experience, training, and perspectives of individual teachers (White, 2011). Therefore, when PLCs are operating as a true collaborative process, there should be a correlation between the work of the PLC and student achievement.

CHAPTER III

METHODOLOGY

The research reviewed supports that student achievement can be positively impacted if there is a sustained collaborative effort by the adults in the school building, and one of the most efficient forms of such collaboration is the professional learning community (Eaker et al., 2002; Hord & Sommers, 2008). The research supports that such a learning organization can, with the proper support and long-term commitment, unite teachers in a sustained, job-embedded, teacher-led, and relevant focus on student learning. However, to what extent is this research actually being embraced? There are many schools that lay claim to professional learning communities as a tool to improve teacher practices and student achievement. Therefore, this study looked to identify schools in Mississippi that are actually committed to professional learning communities (PLC) in practice and not just in name.

Also, the intent of the study was to explore the correlation between functionality and commitment to PLCs and student achievement as indicated by the school's Quality Distribution Index (QDI) score as formulated from state assessment results by the Mississippi Department of Education. In other words, do schools using PLCs actually function as a learning organization and positively impact student achievement, or are they professional learning communities in name only? Also, frequency of PLC meetings and the impact on student achievement was analyzed to determine if there is a correlation. The impact of meeting frequency is a crucial concern for school leaders in that time is of the utmost importance. There are only so many minutes and hours in a school day, so

when it comes to scheduling time for collaboration, time becomes a premium. There is a big difference in finding collaborative time once a month as compared to finding it daily.

Through PLCs decisions can be made regarding student achievement as to what is working and what is not working. PLCs encourage commitment to finding a solution that can build on practices that positively impact student achievement. The collaborative work in PLCs creates a venue for ongoing long-term professional learning (Easton, 2011b). The research supported collaboration with fidelity, and if a school district is truly committed to teacher collaboration, student achievement can be improved. Therein was the ultimate question for this study - are schools in Mississippi actually using PLCs to improve teacher practice and improve student achievement, and, if so, are the PLCs actually functioning as professional learning communities committed to functioning as a tool to improve student achievement, and, if so, does how often a PLC meets really matter to student success?

Research Questions

The following questions guided the study:

1. Are schools in Mississippi using professional learning communities?
2. To what degree does the principal rate his or her school is functioning as a professional learning community as measured by the *School Professional Staff as Learning Community* instrument (Hord, 1996)?
3. Is there a relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which the school is functioning as a professional learning community?

4. Is there a relationship between the frequency of professional learning community meetings and student achievement as measured by the Mississippi Quality Distribution Index?

Null Hypotheses

To answer the third and fourth questions, the following research hypotheses were formulated:

H₀₁ – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which a school is functioning as a professional learning community.

H₀₂ – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the frequency in which a professional learning community meets.

Research Design

To determine if a relationship exists between the functionality of a school as a learning organization or professional learning community and student achievement, and the relationship between frequency of PLC meetings and student achievement, a correlational research design was used. A Pearson's correlation was used to determine if relationships exist between the variables. Statistical information was collected through the use of the School Professional Staff as Learning Community instrument (Hord, 1996) and analyzed using SPSS. Before calculating the correlational coefficients, descriptive statistics were run, organized, and summarized for the data self-reported by the principal and collected by the SEDL instrument. Schools were categorized by those with PLCs

and those without PLCs. Schools that self-identified as not having professional learning communities were eliminated from the correlational calculations.

There were three quantitative variables identified for this study. The first variable, one of two independent or predictor variables, was the degree of functionality as a PLC as rated by the principal. The second independent or predictor variable was the frequency of PLC meetings as reported by the principal. Finally, the third variable was student achievement as measured by the Mississippi Quality Distribution Index (QDI), which is the dependent or criterion variable for the study.

Participants

The goal of this quantitative study was to gather information from Mississippi elementary school, middle school, and high school principals in grades kindergarten through 12 regarding the school's participation or non-participation in professional learning communities, and the impact that participation (if any) has on student achievement. Permission to participate requests were sent to superintendents (Appendix A, Appendix B) in 80 Mississippi school districts in four assigned regions of the state: the Delta region (DELT) comprised of 14 counties, the Hills region (HILL) comprised of 27 counties, the Central region (CENT) comprised of 18 counties, and the Coastal (COAS) region comprised of 23 counties (Appendix C). Once permission was granted by the superintendents, letters of introduction and surveys (Appendix D) were mailed to all elementary school, middle school, and high school principals in the participating Mississippi school districts. The anonymity of each principal was protected in that the only identifying information was the code for the region of the state from which the

survey was returned. The regional code was pre-marked on each survey. The goal was to have at least 100 completed surveys returned.

Instrumentation

Permission was granted by Southwest Educational Development Laboratory (SEDL) for use of the survey instrument entitled *School Professional Staff as Learning Community* (Hord, 1996) (Appendix E). The survey was a five point Likert scale instrument developed by Shirley Hord (1996). The instrument was piloted and field tested by Appalachia Educational Laboratory (AEL). Hord's research showed that a major factor in improving schools is the professional learning community.

The instrument contains Part I and Part II. Part I contains questions dealing with use of professional learning communities in the school, QDI, frequency of PLC meetings, and leadership style utilized in the professional learning community meetings. Part II contains the five indicators of PLCs as established by Hord (1996). Each of these attributes or indicators had two to five questions designed to determine the degree to which a school was functioning as a professional learning community. There were 17 items on the instrument with each indicator or descriptor score ranging from a low rating of 1 to a high rating of 5. The total PLC score ranged from a low of 17 to a high of 85.

Breakdowns of the descriptors were as follows:

1. Indicator 7 – two descriptors – range 2 to 10
2. Indicator 8 – three descriptors – range from 3 to 15
3. Indicator 9 – five descriptors – range 5 to 25
4. Indicator 10 – two descriptors – range 2 to 10
5. Indicator 11 – five descriptors – range 5 to 25

A high score for a descriptor within an indicator as well as a high total score reflected a productive professional learning community. A low score for a descriptor within the indicator as well as a low total score reflected a PLC that was less productive.

Part II of the instrument, *School Professional Staff as Learning Community*, was developed by Shirley Hord (1996). The field test and pilot test for the instrument was conducted by Appalachia Educational Laboratory (AEL). A copy of the AEL study, *A Field Test of an Instrument Measuring the Concept of Professional Learning Communities in Schools* (Meehan, Orletsky, & Sattes, 1997), was obtained by permission of SEDL along with permission to use the Hord (1996) instrument (Appendix F).

AEL included 690 educator responses from 21 schools. SPSS software was used to perform analyses on the data. Statistical analyses run by SPSS included descriptive statistics, internal consistency reliability coefficient, stability reliability coefficient, content validity, concurrent validity, construct validity, and factor analysis. The Cronbach Alpha internal consistency reliability ranges for the five indicators were reported as follows: descriptor 1 ranged from .68 to .91, descriptor 2 ranged from .52 to .91, descriptor 3 ranged from .56 to .91, descriptor 4 ranged from .52 to .94, descriptor 5 ranged from .59 to .88, and the total instrument ranged from .62 to .92. From these ranges, it was concluded that the instrument could be useful as a measuring device to assess to what degree a school was functioning as a professional learning community. The instrument met the criteria for usability, reliability, and validity (Meehan et al., 1997).

Procedures

The study was submitted to The University of Southern Mississippi Institutional Review Board (IRB) for permission to proceed with the study. Permission was granted to proceed (Appendix G).

Permission was granted by the superintendents (Appendix B) in 31 Mississippi school districts for his or her elementary, middle, and high school principals to participate in the study. A survey was sent to principals in the participating school districts. For the purpose of this study, an elementary school was made up of grade kindergarten through grade 6, a middle school was made up of grades 7 and 8, and a high school was made up of grades 9 through 12. Schools designated as vocational centers, alternative schools, or other special function/population schools were not included in the study.

All surveys were anonymous, but basic information such as grade configuration, student population, and state Quality Distribution Index (ODI) score were asked. The survey also asked if the school used teacher-centered PLCs. The principal was asked to answer, “Yes, teachers in my school are involved in professional learning communities,” or “No, teachers in my school are not involved in professional learning communities.” If the participating principal responded “No” to the question, the survey ended at that point. If the participating principal responded “Yes” to the question, he or she continued to the next part of the survey, which dealt with functionality, and was measured by the *School Professional Staff as Learning Community* (Hord, 1996) segment of the survey (Appendix E).

Information collected was used to determine the degree to which schools participating in PLCs functioned as a professional learning community as measured by

the *School Professional Staff as Learning Community* instrument (Hord, 1996). In addition, the study sought to understand if there was a relationship or correlation between student achievement as measured by the Mississippi Quality Distribution Index (QDI) and the degree the school was functioning as a PLC as well as determining if there was a relationship or correlation between the frequency of PLC meetings and student achievement as measured by the Mississippi Quality Distribution Index. The study looked at the relationship between the leadership style of the PLC and student achievement.

To answer the research questions, the survey was mailed (United States Postal Service) to elementary school principals, middle school principals, and high school principals in participating school districts in the state of Mississippi. Several demographic type questions were used as a part of the survey as well. The questions covered the following information:

1. Type school (elementary, middle, high)
2. Region in state (Coastal, Central, Hills, Delta). The region will be pre-labeled on all surveys (mailed or digital)
3. Mississippi Quality Distribution Index (MAARS, 2011 – 2012)
4. Teachers participate in professional learning communities (Yes or No)
5. Frequency of professional learning community meetings
6. Functionality of professional learning communities in the school

Addresses for all schools were obtained from the Mississippi Department of Education website, www.mde.k12.ms.us, as well as from the websites of the participating school districts. A cover letter (Appendix D) was sent with each survey with an

explanation of the study, the purpose of the study, and the significance of the study. The letter explained that there were no associated risks with completing the study, benefits of the study, and that each survey was coded by identified state regions to ensure confidentiality. The coded regions were identified as Coastal, Central, Hills, and Delta (Appendix C). The goal was to receive at least 100 completed surveys from all regions combined. To encourage completion and return of the surveys, a stamped self-addressed envelope was included.

Limitations

The single biggest limitation to the study was the assumption due to conditions of anonymity that frequency data as well as Quality Distribution Index (QDI) data would be reported truthfully and accurately by all school principals. Another limitation for this study was the assumption that frequency of meetings and leadership style associated with the meetings had an impact on student achievement since other factors such as content or focus of meetings, organization commitment, and empowerment of collaborative practices within the meetings may have as much if not more of a significant impact on student achievement. The third limitation was that the study was limited to Mississippi; therefore, the results may not be representative of other states. Finally, because of these limitations, a complete or accurate picture of the impact of PLCs on student achievement may not have been obtained, or it was limited by the view of the impact on student achievement as reported by the school principals, which may or may not have been bias. However, the research was designed for four purposes only:

1. To identify schools in Mississippi that report the use of professional learning communities as a means of school reform that impacts student

achievement. The limitation here was that a true picture of schools may not be presented due to a lack of participation or return of the study survey;

2. To determine the frequency that professional learning communities meet and the frequency correlation to student achievement. The limitation here was that other contributing factors are not presented as variables in this study;
3. To determine if there is a correlation between the leadership style used in professional learning communities and student achievement. The limitation here was that in many instances there is not a clear leadership roll or the leadership roll or style may vary based on the purpose or goals of the meeting.
4. To determine the functionality of professional learning communities as rated by the principal and its correlation to student achievement. The limitation here was an assumption that the principal would respond correctly, truthfully, and without bias to the survey questions.

Data Analysis

After the surveys were collected and categorized, the collected data were analyzed using SPSS. A descriptive analysis was run, and then a Pearson's correlation was run to determine relationships between the functionality data collected and the 2011 – 2012 Mississippi Quality Distribution Index. Next, a correlation analysis was run to determine relationships between the frequency data collected and the 2011 – 2012 Mississippi Quality Distribution Index. Finally, a correlation analysis was run to determine

relationships between leadership data collected and the 2011 – 2012 Mississippi Quality Distribution Index. Quantitative data collected from schools (QDI) were compared to the reported 2011–2012 QDI data. To maintain school anonymity, the principal provided his or her school's QDI for the 2011–2012 school year requested on the survey. There was an assumption of honesty in reporting the score. A by-product of this study was a snapshot of the number or percentage of schools claiming to utilize PLCs in Mississippi.

Schools self-identifying as having PLCs were comparatively analyzed based on frequency of meetings, leadership style, and degree of functionality as a PLC as rated by the principal on the survey instrument. Student achievement based on the Mississippi Quality Distribution Index was compared after the data had been categorized. The data were analyzed by using a Pearson correlation with an alpha value of .01.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to identify the degree principals rate their school as functioning as a professional learning community as measured by the *School Professional Staff as Learning Community* instrument (Hord, 1996), and to analyze the relationship between student achievement as measured by the 2011–2012 Mississippi Quality Distribution Index (QDI) and the degree to which the principals identified their schools as functioning as a professional learning community (PLC). Also, this study sought to identify a relationship between the frequency of PLC meetings and student achievement as measured by the 2011–2012 Mississippi Quality Distribution Index (QDI).

Over the past few years, Mississippi has initiated several school improvement initiatives across the state, and the development of professional learning communities as a means to encourage teacher collaboration as well as provide the time needed to study and improve teacher practices has been a major focus. Although implementation of professional learning communities has been one of the leading reform efforts in the state, it remains to be seen if PLCs have truly made a difference in how the business of teaching and learning occurs in the state. Has there been measurable improvement that can be associated with professional learning communities, and, if so, is there evidence that professional learning communities are in fact changing the culture of teaching and learning in the state? To help answer these questions, this study looked at principal perceptions of their school as a functioning professional learning organization. This is

important since for a culture to change there must be a change not only in habits, but in beliefs; therefore, it is important to understand how principals perceive learning communities within their school. The underlying questions are do principal perceptions reflect student achievement in the school, and does the frequency or time allowed for professional collaboration make a difference in student achievement?

This chapter reports data analyses of the relationship between professional learning communities and student achievement as measured by the 2011 – 2012 Mississippi Quality Distribution Index as reported by elementary school, middle school, and high school principals from 31 participating school districts across the state of Mississippi who completed the *School Professional Staff as Learning Community* instrument (Hord, 1996) and the accompanying demographic questions that made up Part I of the survey instrument. The data used in this study included frequencies, descriptive statistics, and Pearson correlation coefficients. Each research question and hypothesis is reported independently.

The first step was to secure participants for the study. To do this, superintendents in 80 school districts across the state were written asking for permission for their kindergarten through grade 12 principals to participate. Thirty-three superintendents responded to the request (41.25%). Thirty-one of the superintendents granted permission for their principals to be contacted about participating in the study. Two-hundred thirty-one surveys were sent to principals in the 31 participating school districts. From these surveys, 101 (43.72%) principal surveys were returned completed.

The study was guided by the following research questions:

1. Are schools in Mississippi using professional learning communities?

2. To what degree does the principal rate his or her school is functioning as a professional learning community as measured by the *School Professional Staff as Learning Community* instrument (Hord, 1996)?
3. Is there a relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which the school is functioning as a professional learning community?
4. Is there a relationship between the frequency of professional learning community meetings and student achievement as measured by the Mississippi Quality Distribution Index?

The principal provided information on the survey as to whether his or her school participated in professional learning communities or not, and they also indicated the frequency of professional learning community meetings as well as PLC leadership styles used to facilitate the meetings. However, to answer research questions 3 and 4, the following research hypotheses were developed:

H₀₁ – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which a school is functioning as a professional learning community.

H₀₂ – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the frequency in which a professional learning community meets.

The data results are reported in the following order: Demographic characteristics and frequencies, descriptive statistics for survey responses, and finally Pearson correlation coefficients.

Descriptive

The demographic information collected for this study included region of the state, school level, and participation in professional learning communities. The demographic data focused on frequency of occurrence in each of the identified areas.

Table 1 shows the demographic region or area of the state from which the participants responded. A map of the state sub-divided by region can be found in Appendix C. Although the intent of the study was to obtain a balanced assessment sample from across the state with the understanding that a less dense population in the northern half of the state could possibly have some impact on the overall sample, the response from the Delta and Hills region did not materialize as expected. Only three school districts of the 30 invited to participate from these two regions actually participated with a low total of 6 principal responses from the two regions. Overall, there were 101 principals from across the state who participated in the study. Out of 15 school districts in the Delta region who were asked to participate, only one school district agreed to participate, and only one principal from that school district responded to the survey. Another 15 school districts were asked to participate from the Hills region of the state; two school districts agreed to participate. Five principals from the two school districts in the Hills region responded to the survey. Since the state's population is denser in the Central and Coast regions of the state, which runs basically from Jackson south to Biloxi (Appendix C), additional school districts were asked to participate in the study from these two regions. Therefore, in the Central region, 30 school districts were asked to participate with 20 school districts agreeing to participate. Sixty-five principals from the Central region's school districts responded to the survey instrument. Twenty school

districts from the Coast region were asked to participate in the study, and eight school districts agreed. Thirty Coast region principals responded to the survey.

Table 1

Demographic State Region of Participants

	Frequency	Percent
Delta	1	1.0
Hill	5	5.0
Central	65	64.4
Coast	30	29.7
Total	101	100.0

Table 2 shows the school grade level of the principals who participated in the study. The principal designated if his or her school was an elementary school (grades kindergarten through 6), a middle school (grades 7 and 8), or a high school (grades 9 through 12). Thirty-one Mississippi school districts participated in the study, and 231 principal surveys were sent to principals in the participating school districts. The breakdown of surveys by school level sent to principals was as follows: elementary school principals, 132; middle school principals, 44; and high school principals, 55. Table 4 shows that 51 (50.5%) of the responding principals were elementary principals, 32 (31.7%) of the study participants were middle school principals, and 18 (17.8%) of the responders were high school principals. The overall return rate for the survey was 43.72%.

Table 2

Demographic School Level of Participants

	Frequency	Percent
elementary school	51	50.5
middle school	32	31.7
high school	18	17.8
Total	101	100.0

The principal self-reported his or her 2011 – 2012 Quality Distribution Index (QDI) score. Ninety-two principals reported their score with an assumption on the part of the study that they were honest about the score. Nine principals completed the survey but did not report their QDI score. The data submitted by these 9 principals were included in the descriptive statistics and frequencies, but their data were excluded from the Pearson correlation coefficients since their QDI was the missing dependent variable.

The principal also marked “yes” or “no” to designate if his or her school participated in professional learning communities. Ninety-eight percent of the participating schools responded that the teachers in their school were involved in a professional learning community. Only 2 principals out of 101 said that their teachers were not involved in a professional learning community. Both of the principals who reported teachers were not involved in professional learning communities were from the Coast region of the state. One of these schools was an elementary school, and the other

school was a high school. Table 3 shows PLC involvement as reported by the school principals.

Table 3

Demographic School PLC Participation

	Frequency	Percent
yes – PLC	99	98.0
no – PLC	2	2.0
Total	100.0	100.0

The responses to the demographic questions on the survey revealed that 98% of the schools in the sample population participate in professional learning communities. Just over half of the respondents to the survey (50.5%) were elementary school principals, and 94.1% of the respondents came from the Central and Coast regions of the state.

Research Questions

Research question 1 asked if a school participated in professional learning communities. Ninety-eight percent of the principals responded that the teachers in their schools were involved in a professional learning community. Only 2 principals out of 101 said that their teachers were not involved in a professional learning community. This indicates that professional learning communities are being utilized in schools in Mississippi. Table 3 shows that 98% of the principals participating in the study reported that professional learning communities were being utilized in their school. From the

level of participation reported in Table 3 and the number of principals participating from the Central and Coast regions, it appears professional learning communities are representative of practice in at least the Central and Coast regions of the state.

Research question 2 asked to what extent the principal perceived his or her school is functioning as a professional learning organization as measured by Part II of the survey, the *School Professional Staff as Learning Community* instrument (Hord, 1996). Ninety-nine principals responded to survey question/indicators 7 through 11 (Part II), which looked at the degree to which a school was functioning as a professional learning community. Two principals reported that their schools did not participate in professional learning communities; therefore, they did not have data for indicators 7 through 11 to report.

Part II contained five indicators (questions 7 – 11) of professional learning communities, and each indicator had two to five questions designed to determine the degree to which a school is functioning as a professional learning community. There were five questions or indicators with from 2 to 5 sub-questions or descriptors under each question for a total of 17 items on Part II of the survey. Each descriptor score ranged from 1 to 5 with the total professional learning community score ranging from 17 to 85. Breakdowns of the descriptors are as follows:

1. Indicator 7 (question 7) – two descriptors – range 2 to 10
2. Indicator 8 (question 8) – three descriptors – total score range from 3 to 15
3. Indicator 9 (question 9) – five descriptors – total score range 5 to 25
4. Indicator 10 (question 10) – two descriptors – total score range 2 to 10
5. Indicator 11 (question 11) – five descriptors – total score range 5 to 25.

A high score for a descriptor within an indicator as well as an overall high total score reflects a productive professional learning community. A low score for a descriptor within the indicator as well as a low overall score reflects a professional learning community that is less productive or less mature in its function.

Indicator 7 (Table 4) dealt with the degree to which principals share power, authority, and decision making with teachers. On a scale of 1 to 5, with 1 being low and 5 being high, the overall mean for indicator 7 was 3.99. This overall mean was next to the lowest overall mean reported of the five indicators for Part II of the survey. Although a mean of 3.99 is fairly strong, it shows that some principals may struggle with teacher empowerment and that there is still work to be done in this area.

Table 4

Indicator 7: Descriptive Statistics: Shared Power, Authority, Decision Making (N = 99)

		Min	Max	M	SD
Indicator 7 a	Staff involved in school issues decision making	3	5	4.02	.714
Indicator 7 b	Extent Admin involves staff in decision making	3	5	3.96	.713
Overall Mean		3.00	5.00	3.99	.61

Note. Indicators 7 through 11 used a Likert scale of 1 = low to 5 = high.

Table 5 shows the descriptive statistics for Indicator 8, Shared Visions for School Improvement. Indicator 8 had the highest overall mean of the five indicators with a mean of 4.29. This mean score indicates principals believe that there is an overall high level of

focus on student learning and school improvement in their schools and that the focus is a shared focus by the administrator and the teachers. This high level of focus is indicative of schools that function as high-level professional learning organizations.

Table 5

Indicator 8: Descriptive Statistics: Shared Visions for School Improvement (N = 99)

		Min	Max	M	SD
Indicator 8 a	Visions for improvement are shared and discussed by the entire staff.	1	5	4.09	.77
Indicator 8 b	Visions for improvement are focused on students, teaching, and learning.	3	5	4.49	.59
Indicator 8 c	Visions for improvement target high-quality learning experiences for all students.	3	5	4.28	.67
Overall Mean		3.00	5.00	4.29	.55

Note. Indicators 7 through 11 used a Likert scale of 1 = low to 5 = high.

Indicator 9 (Table 6) deals with teachers being involved in shared learning that creates high intellectual learning solutions that address student needs. With an overall mean of 4.09 on a scale of 1 to 5, with 1 being a low score and 5 being a high score, Indicator 9 indicates time is being set aside for teachers to meet to discuss and share information for school improvement as it applies to the needs of the students. The only area that did not rate consistently high was Indicator 9a, which dealt with the “entire staff” meeting to collaborate. However, even this area is still fairly strong with a mean rating of 3.83, which indicates that overall there is a conscious effort on the part of the

schools surveyed to provide opportunities for teachers to discuss and share information. Such collaboration is a strong indicator that these schools are functioning to a high level as professional learning organizations.

Table 6

Indicator 9: Descriptive Statistics: Shared Learning that Creates High Intellectual Learning Solutions that Address Student Needs (N = 99)

		Min	Max	M	SD
Indicator 9 a	Entire staff meet to discuss, share information, and learn from each other	3	5	3.83	.73
Indicator 9 b	Staff meets frequently and regularly on student educational issues	3	5	4.18	.69
Indicator 9 c	Staff discusses the quality of teaching and student learning	3	5	4.17	.62
Indicator 9 d	Based on learning, staff make and implement plans that address student needs and effective teacher practices	3	5	4.17	.59
Indicator 9 e	Staff debriefs and assesses impact of their actions and make revisions	3	5	4.08	.57
Overall Mean		3.00	5.00	4.09	.48

Note. Indicators 7 through 11 used a Likert scale of 1 = low to 5 = high.

The lowest overall mean, 3.17, was reported for Indicator 10, Opportunity for Peer Review and Feedback. One explanation for such a low mean is that the mean reflects the continuing struggle principals have with finding time for teacher collaboration as well as time for teachers to be involved in peer observations and

feedback. However, “co-planning of lessons is the task that has one of the highest likelihoods of making a marked positive difference on student learning.” (Hattie, 2012, p. 66). Therefore, finding time for teacher collaboration is essential to school improvement if principals hope to positively impact student achievement. In other words, finding time for collaborative actions such as peer review and feedback may be a struggle, but the impact these practices have on student learning is worth the struggle. This means that in spite of the struggles, school improvement that focuses on learning as an on-going collaborative process takes a commitment by the principal and teachers to the collaborative use of time to bring about the desired goal of improving student achievement. Commitment to the collaborative process is the key, but the overall mean score of 3.17 indicates that in many schools a commitment may be lacking to make such collaboration possible. The survey indicates that many principals recognize this dilemma. Both Indicator 10a, regular and frequent classroom observation visits, and Indicator 10b, feedback provided based on teacher classroom observations, fall just above the mid-line for the mean score (10a = 3.06 mean and 10b = 3.27 mean), which indicates that school principals recognize this as an area of concern.

Table 7

Indicator 10: Descriptive Statistics: Opportunity for Peer Review and Feedback (N = 99)

		Min	Max	M	SD
Indicator 10 a	Staff regularly and frequently visit and observe one another's classroom teaching	1	5	3.06	.96

Table 7 (continued).

		Min	Max	M	SD
Indicator 10 b	Staff provides feedback about teaching and learning based on classroom observations	1	5	3.27	1.09
Overall Mean		1.00	5.00	3.17	.96

Note. Indicators 7 through 11 used a Likert scale of 1 = low to 5 = high

Table 8 shows the data for Indicator 11, Conditions and Capacities Support Staff as a PLC. Indicator 11 had the second highest overall mean of 4.14. This mean points to a conscious commitment by both the principal and staff towards working together to provide the support needed to build a collaborative learning community. Commitment to time for staff interactions (4.33 mean) and procedures for encouraging staff communication (4.31 mean) reflect a high degree of commitment to functioning as a mature professional learning organization.

Table 8

Indicator 11: Descriptive Statistics: Conditions and Capacities Support Staff as a PLC (N = 99)

		Min	Max	M	SD
Indicator 11 a	Time is arranged and committed for whole staff interactions.	2	5	4.33	.66

Table 8 (continued).

		Min	Max	M	SD
Indicator 11 b	The size, structure, and arrangements of the school facilitate staff proximity and interaction.	3	5	4.05	.75
Indicator 11 c	A variety of processes and procedures are used to encourage staff communication.	2	5	4.31	.65
Indicator 11 d	Trust and openness characterize all of the staff members.	2	5	3.89	.70
Indicator 11 e	A Caring, collaborative, and productive relationships exist among all staff members.	3	5	4.12	.58
Overall Mean		2.60	5.00	4.14	.49

Note. Indicators 7 through 11 used a Likert scale of 1 = low to 5 = high

Finally, Table 9 shows the overall mean of Indicators 7 through 11. The overall mean of 4.02 indicates that organizing schools into productive professional learning organizations is a high priority for principals.

Table 9

Descriptive Statistics for Survey Items (Indicators) 7 Through 11 (N=99)

	Min	Max	M	SD
Overall Mean	3.12	5.00	4.02	.43

Note. Indicators 7 through 11 used a Likert scale of 1 = low to 5 = high

Research question 3 asked if there is a relationship between the degree of functionality of a school as a professional learning community as measured by the *School Professional Staff as Learning Community* instrument (Hord, 1996) and student achievement, as measured by the Mississippi Quality Distribution Index (QDI). The QDI is utilized by the state of Mississippi as its overall measure of student achievement on the state's statewide assessments in Algebra I, Biology I, English II, and United States History. Based on a student success formula where students are assigned a score of 0 for scoring minimal on the test, 1 for scoring basic, 2 for scoring proficient, and 4 for scoring advanced, schools are rated as A – Star School, B – High Performing School, C – Successful School, D – Academic Watch School, and F – Low Performing School. The underlying question for this study was what is the impact if any of professional learning communities on a school's QDI score and therefore on a school's accountability rating? Table 10 shows the QDI scoring breakdown as well as where the participants in this study fall on the QDI table.

Table 10

Mississippi Quality Distribution Index Breakdown

QDI Score	Label	Description	Survey Participants	Percent
200 – 300	A	Star	23	22.8
166 – 199	B	High Performing	41	40.6
133 – 165	C	Successful	26	25.7

Table 10 (continued).

QDI Score	Label	Description	Survey Participants	Percent
100 – 132	D	Academic Watch	2	2.0
0 – 99	F	Low Performing	0	8.9
NA		Did Not Report	9	0.0
N			101	100.0

Table 11 shows the descriptive statistics for the 2011–2012 Mississippi Quality Distribution Index (QDI). The QDI score from each participating school was self-reported by the principal. There were nine principals who did not report a QDI score for his or her school on the survey instrument. The reported QDI scores ranged from a minimum of 111 to a maximum of 249. The standard deviation for the QDI score was 25.84.

Table 11

Mississippi Quality Distribution Index

	N	Min	Max	M	SD
QDI	92	111	249	181.14	25.84

Research question 4 asked if there was a relationship between the frequency of professional learning community meetings and QDI. The principal indicated one of the following as his teachers' participation level in PLCs in the school: 5 – Part of the culture: PLCs are job embedded and teachers meet in PLCs three to five times per week; 4 – Committed: PLCs meet at least once per week, but meetings may or may not be job embedded; 3 – Regular: PLCs meet one or two times per month, but meetings may or may not be job embedded; 2 – As Needed: PLC meetings are scheduled as needed, usually once per nine weeks or semester; and 1 – Never: PLCs do not fit into the school schedule. Table 12 shows that 12.9% of the principals responded that they felt that PLCs were a part of the school culture, 50.5% of the principals said that their school was committed to PLCs, and 30.7% of the principals reported that there was a regular commitment to meet PLCs at least one to two times per month. Finally, four principals (4.0%) said that their teachers only meet in PLCs once per nine weeks or semester.

The mean for the sum of scores reported by the principals was calculated for each degree of frequency of PLC meetings for each participation group. The minimum score a school could achieve on the instrument was 17 while the maximum score was 85. The reported scores ranged from a low of 53 to a maximum of 85. Principals who reported PLCs met as needed showed the lowest mean score on the survey instrument of 63.25. Principals reporting PLCs met at least once per month were slightly better with a mean score of 65.52. A mean of 68.56 was recorded by principals reporting their PLCs were committed to meeting at least one time each week. Finally, those principals who reported that PLCs were a part of their school culture showed the highest mean score of 75.61. The increase in the mean from a low of 63.25 (PLCs meet as needed) to the high of 75.61

(PLCs function as part of the school culture) indicates that schools tend to function to a higher degree as professional learning communities in schools where more time for collaborative meeting is supported for teachers. Two principals reported their school did not participate in professional learning communities.

Table 12

Degree/Frequency of Participation in Professional Learning Communities

Degree/Frequency		Frequency	Percent	Mean Score
Valid	Never meet	0	0	0
	Meet As Needed	4	4.0	63.25
	Regular – Meet once or twice monthly	31	30.7	65.52
	Committed – Meet once per week	51	50.5	68.56
	Part of Culture – Meet 3 to 5 times each week	13	12.9	75.61
	Total	99	98.0	

Statistical

Research Hypotheses

H₀₁ –There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which a school is functioning as a professional learning community.

H_{02} – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the frequency in which a professional learning community meets.

To answer research hypothesis 1, a Pearson's correlation coefficient was run.

Table 13 shows the Pearson's correlation coefficient between the five indicators on the *School Professional Staff as Learning Community* instrument (Part II) and the Mississippi Quality Distribution Index (QDI). The data show that overall $r = .070$, which indicates that overall there is not a strong relationship between the two variables. Therefore, $r(90) = .192$, $p = .070$ indicates that a significant relationship does not exist between QDI and schools that function as a professional learning community. The significance of each data set or indicator of the *School Professional Staff as Learning Community* instrument is greater than .01 ($p > .01$). Therefore, the null hypothesis was not rejected.

Table 13

Pearson Correlation – QDI to Indicator (q) Scores and Total Instrument Score (N = 99)

		q7 Mean	q8 Mean	q9 Mean	q10 Mean	q11 Mean	Overall Mean
QDI	Pearson's "r"	-.194	.156	.205	.305	.124	.192
	Sig. (2-tailed)	.067	.141	.052	.003	.243	.070*

A Pearson's correlation coefficient was also run for hypothesis 2. The data show that overall $r = -.039$, which indicates that overall there is not a significant statistical relationship between the two variables. Therefore, $r(90) = -.039$, $p = .715$, indicates that

a significant relationship does not exist between QDI and frequency of professional learning community meetings. Therefore, the null hypothesis was not rejected.

Ancillary Findings

Although not part of the original research hypotheses, the responses by principals to the leadership style used in professional learning communities in his or her school (survey question 6) merited a closer look. Professional learning community leadership style was reported as follows: 5 – PLC led by a teacher leader, 4 – PLC leadership shared by teachers (co-leaders), 3 – PLC leadership rotated among all PLC participants, 2 – PLC led by the principal or 1 – there was not a clear PLC leader. Three percent of the principals reported there was not a clear PLC leader in their school; 5% of the principals reported that PLCs were led by the principal; and 16.8% of the principals said that PLC leadership was rotated among PLC participants. Finally, 29.7% of the principals indicated that there were co-leaders or shared leadership within their school's PLC groups, and 43.6% of the principals reported that PLCs in their schools were led by a teacher. Overall, the survey instrument indicated that teachers were the primary leaders of professional learning communities in their schools with a combined leadership percentage showing teacher involvement in leadership of PLCs of 92%. There were two principals who reported that their school did not participate in PLCs. Due to the high percentage of teachers involved as leaders within PLCs, it was decided to look at a possible relationship between teacher leadership and student achievement as measured by each school's QDI score. Table 14 shows frequency of responses to each leadership style as well as the mean score that principals reporting each style scored on Part II of the survey instrument.

Table 14

Leadership Style in Professional Learning Communities

	Leadership Style	Frequency	Percent	Mean Score
Valid	No clear leadership in PLC	3	3.0	61.67
	Principal leads PLC	5	55.0	61.60
	Rotated leadership in PLC	17	16.8	66.47
	Co-teacher leaders in PLC	30	29.7	69.80
	PLC led by a teacher leader	44	43.6	69.25
	Total	99	98.0	

With the principal responses indicating a high degree of teacher involvement in PLC leadership, it was decided to look at leadership's impact on QDI scores. Therefore, a Pearson correlation was run to see if there was a relationship between styles of leadership used in professional learning communities and QDI. The data show $r = -.029$, which indicates that overall there is not a significant statistical relationship between the two variables. Therefore, $r(90) = -.029$, $p = .787$ indicates that a significant relationship does not exist between QDI and leadership style used in PLCs.

Summary

The data in Chapter IV were obtained from 101 principals who completed the study survey, which included Part I, demographic questions, as well as Part II, the *School*

Professional Staff as Learning Community instrument (Hord, 1996). The data were analyzed by using SPSS. Frequencies, descriptive statistics, and Pearson correlations were the statistical methodologies used to examine the data. Frequency and descriptive statistics were used to describe the mean and standard deviations for the demographic information. Two principals indicated that their school did not participate in professional learning communities, and nine principals did not report a QDI score. These 11 principals were not included in the Pearson correlations.

To determine if a relationship existed as well as the strength of the relationship, Pearson correlation coefficients were calculated to determine if a relationship existed between schools functioning as professional learning communities and the Mississippi Quality Distribution Index (QDI). The Pearson correlations did not find a significant relationship.

To determine if a relationship existed between the reported QDI score and the frequency of professional learning community meetings, a Pearson correlation coefficient was also run. The Pearson correlation did not find a significant relationship. Although a significant relationship was not found with QDI, the mean score on the survey instrument indicated that the more frequent a PLC meets, the higher the PLC functions as a professional learning community.

Even though it was not one of the original research questions, a Pearson correlation was also run on survey question 6, which dealt with the leadership style used in a school's professional learning communities. There was not a significant statistical relationship found, but the principal responses were promising in that 92% of the responses showed that teachers were involved to some degree in the leadership of

professional learning communities in their school. Olivier and Hipp (2006) stated that teachers who are given the opportunity to be involved in making decisions about the school and learning increase their leadership capacity and build a belief in the school's ability to impact teaching practices and student learning.

CHAPTER V

DISCUSSION

Summary

In this chapter a summary of the study, including research questions addressed, purpose of the study, methods used in the study, and major findings are presented. Also, conclusions are drawn from the four research questions and the two hypotheses, and recommendations for practice and further research are made.

Darling-Hammond and Richardson (2009) stated that professional development that emphasizes student learning and helps teachers develop strong pedagogical skills has a positive impact on teacher practices as well as on student achievement, and according to DuFour et al. (2010), the professional learning community (PLC) is the most powerful ongoing professional development in which this can be accomplished. As a result, many schools across the nation have embraced the PLC as a major part of their professional development. However, often schools that call themselves PLCs do few if any of the things that characterize a PLC. Therefore, despite the popularity of PLCs, actually changing school culture remains a very complex challenge (DuFour, DuFour, & Eaker, 2008).

Mississippi has also been a part of the move to PLCs as a means to encourage teacher collaboration that provides the time needed to study and improve teacher practices that in turn positively impact student achievement. However, have PLCs actually made a difference in teaching practices and student achievement in the state? Therein lies the problem and purpose of this study. Since the implementation of PLCs in the state, has there been measurable improvement that can be associated with

professional learning communities? Is there evidence that PLCs are, in fact, changing the culture of teaching and learning in the state, and is there evidence that PLCs are actually functioning as true professional learning organizations within the schools that have implemented PLCs?

Purpose of the Study

The purpose of this study was to determine if schools in Mississippi are embracing PLCs, to look at principal perceptions of their school as a functioning professional learning organization and its correlation to student achievement, and to identify frequency of PLC meetings and frequency correlation to student achievement. The underlying questions are do principal perceptions of how his or her school functions as a professional learning organization reflect student achievement in the school, and does the frequency or time allowed for professional collaboration make a difference in student achievement as measured by the Mississippi Quality Distribution Index (QDI)?

Research Questions

Four research questions were developed to guide the purpose of the study:

1. Are schools in Mississippi using professional learning communities?
2. To what degree does the principal rate his or her school is functioning as a professional learning community as measured by the *School Professional Staff as Learning Community* instrument (Hord, 1996)?
3. Is there a relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which the school is functioning as a professional learning community?

4. Is there a relationship between the frequency of professional learning community meetings and student achievement as measured by the Mississippi Quality Distribution Index?

Null Hypotheses

To answer the second and third questions, the following research null hypotheses were formulated:

H_{01} – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which a school is functioning as a professional learning community.

H_{02} – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the frequency in which a professional learning community meets.

Methods

Demographic information reported by participants in the study was used to compile descriptive statistics for each principal who responded to the survey instrument. The demographic information included school grade level (elementary school, middle school, or high school), QDI score for the 2011 – 2012 school year (self-reported), participation in professional learning communities (yes or no), frequency of PLC meetings, and PLC leadership style. Pearson correlation coefficients were then calculated to determine if a relationship existed between schools functioning as learning communities (questions/indicators 7 – 11 on the survey) and student achievement, and to determine if a relationship existed between frequency of PLC meetings and student

achievement. Student achievement was measured by the Mississippi Quality Distribution Index (QDI). The QDI data used were from the 2011–2012 school year.

One-hundred and one elementary school, middle school, and high school principals responded to the survey instrument. A total of 31 school districts participated in the study. There were five indicators on the survey that dealt with perception of functionality of the school as a professional learning community or organization. These indicators consisted of the following: (a) shared power, authority, and decision making; (b) shared vision for school improvement; (c) shared learning that creates high intellectual learning solutions that address student needs; (d) opportunity for peer review and feedback; and (e) conditions and capacities support staff as a professional learning community. Each principal responded to the degree he or she believed his or her school was functioning or performing as a professional learning community for each of the five indicators. A Likert scale of 1 to 5 was used to measure the degree or level of function with 1 being the lowest rating and 5 being the highest rating. Each principal also self-reported his or her school's QDI data for the 2011 – 2012 school year.

Conclusions and Discussion

Each research question is presented below with the major findings.

Research question 1 asked, are schools in Mississippi using professional learning communities?

Ninety-eight percent of the participants in the study said their school used professional learning communities. This high response indicates that PLCs are being used in Mississippi in an effort to encourage teacher collaboration that will in turn impact student achievement. However, due to the very limited participation in the northern half

of the state (Delta and Hill regions), it can only be safely concluded that in the southern half of the state (Central and Coast regions) PLCs are a common practice. Therefore, at least in the Central and Coast regions, it appears that schools are embracing Joyce and Calhoun's (2010) conclusion that teachers who think and study together can make a serious difference in student learning.

Research question 2 asked, to what degree does the principal rate his or her school is functioning as a professional learning community as measured by the *School Professional Staff as Learning Community* instrument (Hord, 1996)?

Overall, the survey instrument indicated that organizing schools into productive professional learning organizations is a high priority for principals. However, the responses showed that principals tend to struggle with teacher empowerment even though researchers such as Doug Reeves (2008) talk about improving schools by empowering teachers as leaders to increase student achievement. The survey indicates that principals are focused on creating learning community environments within their schools, but many principals may nevertheless struggle to relinquish the control needed for teachers to become the instructional leaders needed to improve teacher practices through such devices as PLCs and action research (Reeves, 2008).

The survey instrument also indicated that principals believe there is an overall high level of focus on student learning and school improvement in their schools, and that the focus is shared by administrators and teachers. Such a belief in a shared focus on school improvement and student learning is indicative of schools that function at a high level as professional learning organizations. This is encouraging in that unlike the 1966 Coleman Report (Davenport & Anderson, 2002), which stated a child's ability to learn

was contingent upon the child's family background and the social context in which the child lived, principals indicated strongly through the survey that they believed all children can learn, and that they held expectations for themselves and their staffs that all children can learn. This realization that all children can learn no matter what their family background or social context may be is crucial to the growth of the learning organization in that when the members of the organization understand and recognize barriers to growth such as the 1966 Coleman Report, they are more likely to overcome what has often been preconceived ideas or barriers to learning (Senge, 1990).

The survey instrument also indicated that principals were setting aside time for teachers to meet to discuss and share information for school improvement as it applies to the needs of students. Principals reported that there is a fairly strong conscious effort to provide opportunities for teachers to discuss and share information. Most principals reported their staffs met regularly and sometimes even frequently for the purpose of collaboration. Hord (1997) stated that teacher collaboration is essential to school improvement in that through collaboration teachers once again become learners themselves and therefore are better equipped to empathize with their students. As a result of this collaboration, teachers begin to understand that their job as a teacher is not just to teach, but to ensure that all students learn as well.

Reeves (2009) stated that professional collaboration requires time and practice, and that schools that claim to be professional learning communities without providing adequate time for collaboration are being self-delusional. The importance of time being provided for professional collaboration is also evidenced by the Organization for Economic Co-operation and Development (OECD) countries where teachers are much

more likely to visit classrooms of other teachers as well as be involved in instructional collaboration than teachers in the United States (Wei et al., 2009). However, though principals overall reported a conscious effort to provide time for teachers to meet in learning communities, the evidence pointed to a continuing struggle to find time for teachers to be involved in classroom peer observations and feedback. Principals indicated on the survey that this was an area of concern.

The purpose of the learning community is to focus on and commit to the learning of each student (DuFour et al., 2006b). Lezotte (2005) concurred and took this a step further when he said that using the collaborative approach of professional learning communities will produce effective and continuous school improvement that leads to increased student achievement for all students. From the survey, it appears that principals have embraced this concept of the professional learning community. The results of the survey points to a conscious commitment by the principals to providing support for teachers to build a collaborative learning environment and community. This commitment to time for staff interactions and procedures for encouraging staff communication reflects a high degree of commitment to schools functioning as a mature professional learning organization.

Research question 3 asked, is there a relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which the school is functioning as a professional learning community? To answer research question 3, the following null hypothesis was formulated:

H_{01} – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the degree to which a school is functioning as a professional learning community.

Although principal responses to the survey indicated a high level of commitment and support for professional learning communities, a Pearson correlation between student achievement as measured by QDI and principal perceptions of their schools functioning as a professional learning organization did not find a statistically significant relationship between the two. Two major factors could have attributed to this finding. First, the study did not take into consideration the length of time the professional learning community had been in operation at each school. Did schools involved with professional learning communities over time (several years) show greater student achievement improvement than PLCs in operation for a short time such as one or two years? Calculating correlation coefficients based on length of time as a PLC school and student achievement may have provided entirely different results. Second, the study did not look at the work or activities that occur during the PLC meeting itself. Little (2000) says that one of the biggest reasons professional learning communities are successful in improving student achievement is that members of the PLC hold each other accountable to the level of student achievement needed to sustain improvement. It is the work itself during the PLC that makes a difference in student achievement, not the act of meeting in a professional learning community.

Research question 4 asked, is there a relationship between the frequency of professional learning community meetings and student achievement as measured by the

Mississippi Quality Distribution Index? To answer research question 4, the following null hypothesis was formulated:

H_{02} – There is no statistically significant relationship between student achievement as measured by the Mississippi Quality Distribution Index and the frequency in which a professional learning community meets.

The Pearson correlation coefficient calculations for the relationship between frequency of PLC meetings and student achievement as measured by QDI showed that there was not a statistically significant relationship between the two variables. As in research question 3, the level of experience or years functioning as a PLC as well as the quality of work within the PLC was not considered in the analysis of research question 4. If it had, the results may have been quite different. The research is clear (White, 2011) that when a PLC operates as a true collaborative process there should be a correlation between the work of the PLC and student achievement. It is the collaborative work that takes place within the PLC that makes the difference (Reeves, 2010b). However, although the quality of work that takes place during the PLC meeting may be more important than the frequency of meetings, Reeves (2009) argued that effective change does not happen without repeated practice of the behaviors expected by the organization. Changing professional behaviors through repeated or ongoing practice is one of the major strengths of a professional learning community.

Therefore, though there was not a statistically significant finding for the relationship between the frequency of PLC meetings and student achievement, the principals in the study reported that as the level of commitment to meet in a PLC increased so did the mean score for functionality on the survey instrument. The highest

mean score was reported by principals who indicated that PLCs were a part of their school culture and that their PLCs met three or more times per week. This indicates that schools function to a higher degree as a PLC when more time for collaborative meetings is supported. Another reason for this increase in mean score for PLCs that meet more frequently as compared to those that meet less often may be the trust factor. Hord and Tobia (2012) stated that once trust is established among members of the PLC, teachers will be able to open up to their peers about what they teach and how they teach, and the more often teachers have to practice and work together, the more likely the success of their collaborative efforts will be.

Finally, there were two ancillary findings in the study. First, the study revealed teachers are the primary leaders in PLCs as compared to principal leadership of the PLC. Although the principal must be committed to the PLC and visible within the PLC, the demands of the principalship often make it impossible for the principal to meet with the PLC on a daily basis. That is why teacher leadership is so important. Strong teacher leadership is the glue that holds the group together in the principal's absence (Hord & Sommers, 2008). Second, a Pearson correlation coefficient analysis was run on leadership and its relationship to QDI. The analysis did not show a statistical relationship between leadership and QDI. Once again, the length of time that the PLC in a school has been in place may be a major contributing factor in this result.

Limitations

As stated in Chapter III, the single biggest limitation to the study was the assumption that the participants would report requested demographic data as well as responses to the survey questions truthfully and accurately. Another limitation for this

study was that there are possibly other contributing factors or variables such as quality of work conducted in the PLC, length of time that the PLC has been in existence, the tenure of the principal at the school, the education degree held by the principal, and the student enrollment of the school. A third limitation was that participation in the study occurred primarily in the southern half of the state of Mississippi, which may not present an overall true picture of PLCs in Mississippi schools. Finally, a major limitation of the study was that it reported only the perceptions of school principals as to the function of his or her school as a professional learning organization. The perceptions of faculty, staff, and even students could prove to be very different than those expressed by the school principals.

Recommendations for Policy or Practice

Recommendations and suggestions for implementation of professional learning communities based on the findings of this study are as follows:

1. Principals should commit to finding time for teacher peer observations and peer feedback. Peer observations might be in the form of teachers visiting other teachers' classrooms and then providing feedback to the classroom teacher as to what they saw and heard in the classroom, or the peer observation could take the form of the teacher videoing his or her classes and sharing the videos during PLC time with peers for feedback. Such observations and feedback could improve overall organizational capacity.
2. Principals should continue to provide support for professional learning communities in their schools and to empower teachers to lead PLCs.

3. Principals should continue to share their vision for school improvement through a committed focus on student learning. A shared vision of school improvement with a focus on student learning could lead to the development of stronger capacities in the areas of communication and teacher empowerment for leadership opportunities.
4. Principals should commit to finding time for teachers to meet collaboratively in PLCs more often to promote better communication and a stronger sustained focus on school improvement and student learning. Research and this study indicated that the more teachers meet as a collaborative group the better they function as a professional learning community.

Recommendations for Future Research

Recommendations and suggestions for future research based on the findings of this study are as follows:

1. A study could be conducted to determine if a relationship exists between the number of years that a school has been involved in professional learning communities and student achievement.
2. A study could be conducted to determine if a relationship exists between the number of years a school has been involved in professional learning communities and the degree to which the school functions as a professional learning organization as measured by the Hord (1996) instrument.
3. A study could be conducted to compare professional learning community schools with similar demographics (enrollment, region, school level) to determine the impact on student achievement.

4. A study could be conducted where both the principals and the teachers are surveyed and interviewed to determine the perceptions as to the degree their schools function as professional learning communities.
5. A study could be conducted similar to the study undertaken for this dissertation that includes additional demographic information that may help sort through possible biases. The demographic information might include principal's degree/level of education, the principal's years as an educator, the principal's years as an administrator, the principal's years in his or her present position, the number of years the school has been involved with PLCs, and the QDI scores for multiple school years.

APPENDIX A

LETTER TO SUPERINTENDENT

Date

Superintendent Address

RE: Permission to Survey School District Principals

Dear Sir:

I am in the process of completing my dissertation at The University of Southern Mississippi, and I am writing to request permission to survey your school principals in grades 3 through 12. With your permission to participate, the surveys will be mailed directly to your principals for completion, and a self-addressed stamped envelope will be provided for the survey return. All data gathered from the surveys will be strictly confidential, and the survey should take no more than 15 minutes of your principals' valuable time.

I sincerely hope you will review the accompanying permission to participate form and grant your principals permission to participate by signing and returning the form in the self-addressed, stamped envelope provided.

Thank you for your time and consideration for participation in this study, and if you have any questions regarding the study, you may contact me at my email address, Jack.Linton@eagles.usm.edu.

Sincerely,

Jack Linton

Thelma Roberson, Ph.D.
Chair, Educational Leadership and School Counseling
The University of Southern Mississippi

David Lee, Ed.D.
Advisor
The University of Southern Mississippi

APPENDIX B

SUPERINTENDENT PERMISSION TO PARTICIPATE FORM

Permission to Participate in a Research Project Conducted in Affiliation with
The University of Southern Mississippi

Title of Project: THE RELATIONSHIP BETWEEN FREQUENCY AND
FUNCTIONALITY OF PROFESSIONAL LEARNING COMMUNITIES TO
STUDENT ACHIEVEMENT IN MISSISSIPPI

Researcher: Jack Linton

1. **Purpose** – The goal of this study is to collect data about the degree that Mississippi elementary school, middle school, and high school principals rate their schools are functioning as a professional learning community.
2. **Description of Study** – Surveys will be sent to school principals in grades 3 through 12. All surveys are anonymous. Basic information such as grade configuration, student population, and 2012 – 2013 state QDI (Quality Distribution Index) score will be asked [Note – Surveys will not be sent to principals until after the state embargo on test scores has been lifted]. The survey will also use a Likert scale to identify the functionality of the school's professional learning community based on the principal's input on the survey.
3. **Benefits** – The benefits of this study are twofold:
 - a) The data will be used to inform principals as to the effectiveness of the professional learning community as a tool to positively impact student achievement.
 - b) The data will be used to inform and influence teacher preparatory programs across the state.
4. **Risks** – There are no major risks associated with participation in this project.
5. **Confidentiality** – At no time will the names of the participants or the school be identified in any report or presentations.

Signature—My signature indicates that I have given permission for surveys to be sent to school principals in my school district.

Superintendent Name (Please print)

School District

Signature of Superintendent

Date

Please return this form in the accompanying self-addressed stamped envelope.

APPENDIX C

CODED MISSISSIPPI STATE REGIONS FOR SURVEY
DISTRIBUTION/COMPLETION

Region Codes:

COA	= COASTAL
CEN	= CENTRAL
HILL	= HILLS
DEL	= DELTA

APPENDIX D

LETTER TO PRINCIPALS

Date

Dear Principal:

Your superintendent has granted me permission to send you the enclosed survey. As a doctoral candidate at The University of Southern Mississippi, I am in the process of conducting a study, “The Relationship Between Frequency and Functionality of Professional Learning Communities to Student Achievement.” Your participation in the survey would be greatly appreciated.

The survey should not take more than 10 to 15 minutes of your time. Also, if your school does not participate in professional learning communities, all that is needed is your response to survey questions 1 through 4. You will find information below regarding the purpose of the study, anonymity, and participation in the study.

Purpose of Study: The survey goal is to gather information from principals throughout Mississippi in grades K – 12 concerning current practices of professional learning communities in their schools and the impact of professional learning communities on student achievement.

Assurance of Anonymity: The results of the survey will be pooled and individual responses and results will remain absolutely confidential and anonymous – you, your school, or school district will not be identified in the study.

Benefits: The benefits of this study are threefold:

- a) The data will be used to inform principals as to the effectiveness of the professional learning community as a tool to positively impact student achievement.
- b) The data will be used to provide educational leaders information regarding the frequency professional learning communities should meet to provide a positive impact on student achievement.
- c) The data will be used to inform teacher preparatory programs across the state.

Risks and Participation: There are no major risks associated with participation in this study. Participation is completely voluntary, and participants may opt to not participate in this study without penalty, prejudice, or loss of benefits. Return of the survey will constitute your informed consent to use the data you submit in the survey.

Questions concerning the research should be directed to Jack Linton, 200 Parker Drive, Petal, MS 39465 or via email at jack.linton@eagles.usm.edu.

Thank you for your time and kind consideration to participate in this study.

Sincerely,

Jack Linton

Thelma Roberson, Ph.D.
Chair, Educational Leadership and School Counseling
The University of Southern Mississippi

David Lee, Ed.D.
Advisor
The University of Southern Mississippi

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.

APPENDIX E

MISSISSIPPI PROFESSIONAL LEARNING COMMUNITY SURVEY

Part I: School and Professional Learning Community Information

Directions: Questions 1 – 6 concern basic information about your school and professional learning communities in your school. **SPECIAL NOTE:** If you answer “NO” to question #4, there is no need to complete the survey after that point. However, please return the survey as questions 1 – 4 are a vital part of this study.

Date: _____

Region Code: **COS**
 CNT
 HILL
 DEL

1. This school is best described as a

- A. Primary/lower elementary school
- B. Elementary school
- C. Upper elementary school
- D. Middle school
- E. High school
- F. Other: _____

2. What grade levels are served by your school? (ex. K-2, 3-4, etc.) _____

3. Your school’s Mississippi QDI (Quality Distribution Index) for the 2011 – 2012 school year?
 2011 – 2012 QDI _____.

4. Teachers in this school participate in professional learning communities to some extent during the school year.

- A. YES
- B. NO

If you answer NO to #4, STOP! You do not need to complete the remainder of the survey. Please return the survey with your responses to #1, #2, #3, and #4 in the addressed stamped envelope provided in your packet.

5. The degree to which teachers in this school participant in professional learning communities.

5	4	3	2	1
Part of Culture – Job Embedded – Teachers are scheduled in PLCs 3 to 5 days per week during the school day.	Committed to meeting at least once per week (Meetings may be job embedded or scheduled before or after school)	Regular meetings are scheduled for teachers one to two per month (Meetings be job embedded or scheduled before or after school)	As Needed – PLC meetings are scheduled as needed– usually once per nine weeks or semester.	Never – Finding time is difficult – PLCs do not fit our work well for this school.

8b.	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>
	Visions for improvement are focused on students, teaching, and learning.	Visions for improvement are sometimes focused on students, teaching, and learning.	Visions for improvement do not target students, teaching and learning.		
8c.	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>
	Visions for improvement target high-quality learning experiences for all students.	Visions for improvement address quality learning experiences in terms of students' abilities.	Visions for improvement do not include concerns about quality learning experiences.		

9. The staff's collective learning and application of the learnings (taking action) create high intellectual learning tasks and solutions to address student needs.

9a.	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>
	The entire staff meet to discuss issues, share information, and learn with and from one another.	Subgroups of the staff meet to discuss issues, share information, and learn with and from one another.	Individuals randomly discuss issues, share Information, and learn with and from one another.		
9b.	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>
	The staff meet regularly and frequently on substantive student-centered educational issues.	The staff meet occasionally on substantive student-centered educational issues.	The staff never meet to consider substantive educational issues.		
9c.	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>
	The staff discuss the quality of their teaching and students' learning.	The staff does not often discuss their instructional practices nor its influence on student learning.	The staff basically discuss non-teaching and non-learning issues		
9d.	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>
	The staff, based on their learnings, make and implement plans that address students' needs, more effective teaching, and more successful student learning.	The staff occasionally act on their learnings and make and implement plans to improve teaching and learning.	The staff do not act on learnings.		

9e. 5 _____ 4 _____ 3 _____ 2 _____ 1

The staff debrief and assess the impact of their actions and make revisions.

The staff infrequently assess their actions and seldom make revisions Based on results.

The staff do not assess work.

10. Peers review and give feedback based on observing one another's classroom behaviors in order to increase individual and organizational capacity.

10a. 5 _____ 4 _____ 3 _____ 2 _____ 1

Staff members regularly and frequently visit and observe one another's classroom teaching.

Staff members occasionally visit and observe one another's teaching.

Staff members never visit their peers' classrooms.

10b. 5 _____ 4 _____ 3 _____ 2 _____ 1

Staff members provide feedback to one another about teaching and learning based on their classroom observations.

Staff members discuss non-teaching issues after classroom observations.

Staff members do not interact after classroom observations.

11. School conditions and capacities support the staff's arrangement as a professional learning organization.

11a. 5 _____ 4 _____ 3 _____ 2 _____ 1

Time is arranged and committed for whole staff interactions.

Time is arranged but frequently the staff fail to meet.

Staff cannot arrange time for interacting.

11b. 5 _____ 4 _____ 3 _____ 2 _____ 1

The size, structure, and arrangements of the school facilitate staff proximity and interaction.

Considering the size, structure, and arrangements of the school, the staff are working to maximize interaction.

The staff take no action to manage the facility and personnel for interaction.

11c. 5 _____ 4 _____ 3 _____ 2 _____ 1

A variety of processes and procedures are used to encourage staff communication.

A single communication method exists and is sometimes used to Share information.

Communication devices are not given attention.

APPENDIX F

SOUTHWESTERN EDUCATION DEVELOPMENT LABORATORY

ADVANCING RESEARCH
SEDL
 IMPROVING EDUCATION

SEDL LICENSE AGREEMENT

To: Jack Linton (Licensee)
 200 Parker Drive
 Petal, MS 39465

From: Nancy Reynolds
 Information Associate
 SEDL
 Information Resource Center—Copyright Permissions
 4700 Mueller Blvd.
 Austin, TX 78723

Subject: License Agreement to reprint and distribute SEDL materials

Date: January 18, 2013

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SEDL License Agreement, p.2

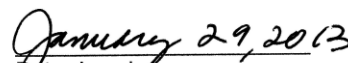
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Thank you, again, for your interest in SEDL's **School Professional Staff as Learning Community Questionnaire**. If you have questions about SEDL's License Agreement, please contact me at 800-476-6861, ext. 6548 or 512-391-6548, or by e-mail at nancy.reynolds@sedl.org.

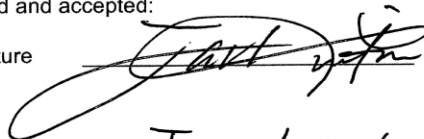
Sincerely,

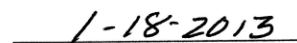

Nancy Reynolds for SEDL


Date signed

Agreed and accepted:

Signature




Date signed

Printed Name JACK LINTON

APPENDIX G

INSTITUTIONAL REVIEW BOARD PERMISSION



INSTITUTIONAL REVIEW BOARD
 118 College Drive #5147 | Hattiesburg, MS 39406-0001
 Phone: 601.266.6820 | Fax: 601.266.4377 | www.usm.edu/irb

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
 - The risks to subjects are reasonable in relation to the anticipated benefits.
 - The selection of subjects is equitable.
 - Informed consent is adequate and appropriately documented.
 - Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
 - Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
 - Appropriate additional safeguards have been included to protect vulnerable subjects.
 - Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
 - If approved, the maximum period of approval is limited to twelve months.
- Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: **13062501**
 PROJECT TITLE: **The Relationship Between Frequency and Functionality of Professional Learning Communities to Student Achievement**
 PROJECT TYPE: **Dissertation**
 RESEARCHER(S): **Jack Linton**
 COLLEGE/DIVISION: **College of Education and Psychology**
 DEPARTMENT: **Education Leadership and School Counseling**
 FUNDING AGENCY/SPONSOR: **N/A**
 IRB COMMITTEE ACTION: **Expedited Review Approval**
 PERIOD OF APPROVAL: **09/25/2013 to 09/24/2014**

Lawrence A. Hosman, Ph.D.
Institutional Review Board

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